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February 24, 2011

PCB RISK-BASED CLEANUP AND DISPOSAL NOTIFICATION

DRAFT

Former Solo/Fonda Container Facility
Brownfield Cleanup Project
15-21 Lower Newton Street
St. Albans, Vermont

Prepared For:
City of St. Albans
P.O. Box 867
100 No. Main Street
St. Albans, Vermont

WSE No. 2100660

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1.0 CERTIFICATION

Site: Former Fonda Group Facility
Location: St. Albans, Vermont
Owner of Property: City of St. Albans
Cleanup conducted by: City of St. Albans *(contractor to be selected)*

The following information was used to assess or characterize the polychlorinated biphenyl (PCB) contamination at the cleanup site:

- Phase I ESA, The Johnson Company, December 2007.
- Phase II ESA, The Johnson Company, October 2008.
- Corrective Action Feasibility Investigation, The Johnson Company, May 2009.
- Corrective Action Plan, The Johnson Company, August 2010.
- Analysis of Brownfields Cleanup Alternatives, The Johnson Company, September 2010.
- Self-Implementing Cleanup and Disposal Plan, The Johnson Company, July 30, 2010.
- Memorandum - Comments on the Former Fonda Group Facility, EPA/TSCA, October 29, 2010.
- Response to EPA/TSCA October 29, 2010 Memorandum, Weston and Sampson, December 13, 2010.
- Site-Specific QAPP, Weston and Sampson, December 2010.

These documents are all on file and are available for EPA inspection at the office of the Owner:

City of St. Albans
P.O. Box 867
100 No. Main Street
St. Albans, Vermont
802-524-1500

Mr. Dominic Cloud
City Manager

Mr. Kenneth J. Bisceglio, P.E., CHMM
Weston & Sampson, Inc.

Cc: Ms. Dorrie Paar, US EPA
Mr. Matt Becker, VTDEC
Ms. Greta Brunswick, NRPC

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2.0 INTRODUCTION

Weston and Sampson Engineers, Inc. has prepared this risk-based notification on behalf of the City of St. Albans (City) for the Former Solo/Fonda Container Facility located at 15-21 Lower Newton Street in the City of St Albans, Vermont (Site). The property consists of two parcels, Lot 15 (1.779 Acres) and Lot 21 (3.729 Acres), for a total area of approximately 5.5 acres. The Site is composed of a former paper product manufacturing facility (currently vacant), a separate boiler house, storage shed, surrounding parking areas and driveways, and a forested area to the north of the building. The building formerly housed the Fonda Group Facility (later Solo Cup), which formed plates from paper stock and printed on the plates. The manufacturing facility closed in late 2005, and the City of St. Albans purchased the property in 2007. The building is composed of three parts, which are referred to as Building #1, #2, and #3, dating from 1942, 1953, and 1957 respectively, and has a total approximate area of 118,300 square feet.

Environmental site assessments have determined that remedial actions are necessary at the Site due to the presence of polychlorinated biphenyls (PCBs), semi-volatile organic compounds (SVOCs), metals, and chlorinated volatile organic compounds (VOCs) in some soil above regulatory limits; chlorinated VOCs in some groundwater above regulatory limits; PCBs in some concrete at concentrations that exceed applicable Toxic Substances Control Act (TSCA) regulatory limits; and metals above regulatory limits in surface water within the shredder pit in Building #3. The State of Vermont Department of Environmental Conservation has assigned the Site the following identification number: SMS#20083777.

During the Brownfields assessment program, the State of Vermont approved a Corrective Action Plan (CAP) that allows for the building demolition. Due to the presence of polychlorinated biphenyls (PCBs), there has been ongoing coordination with the EPA's Toxic Substances Control Act (TSCA) program. A Self-Implementing Cleanup and Disposal Plan (SIP) was submitted in 2010 and is pending approval that will allow for the demolition of the building and removal of a limited amount of asphalt and soil impacted with PCBs.

The City received Brownfield Cleanup Grants to complete the demolition and environmental cleanup to make the property more desirable for prospective developers. The demolition program described in the CAP, ABCA and SIP proposes to leave the concrete foundation and concrete floor slab. Weston and Sampson prepared engineering plans and specifications to complete the demolition in accordance with these State and Federal documents, selected pertinent drawings and specifications are attached. This risk-based plan has been prepared to specifically address PCB contamination in the concrete slab that will remain in place after the demolition of Building #1 and Building #2. Selected areas of the concrete floor that have documented PCB contamination will be capped and fenced along with a deed restriction placed on the land record. During the period following demolition and until there is a redevelopment plan the entire site will be classified as "low occupancy." This plan is considered a temporary measure put in place to manage risk until a development option is selected.

3.0 NATURE OF CONTAMINATION

The source of PCBs is associated with ink products that were used in the former manufacturing process in the building. A Site Plan is attached as **Figure 1** that shows the various building areas associated with the historical use of the building. PCB-impacted concrete is shown on **Figure 2**, and is generally found in areas stained with a dry ink residue.

The areas where there are known or suspected elevated levels of PCBs are as follows:

PCB Areas Impacted Inside Buildings

- Building #1
  - Concrete floor surface in Manufacturing Floor area
  - Former mechanical equipment in Manufacturing Floor area
- Buildings #2
  - Former mechanical equipment south of Printing Room
- Buildings #2 and #3
  - Concrete floor surface and one area of wall surface in Printing Room area
  - Concrete wall surface in Hazardous Waste Storage area
  - Former mechanical equipment in Manufacturing Floor area

PCB Areas Impacted Outside Buildings

- Asphalt surface and shallow soils just south of loading dock for Hazardous Waste Storage area of Building #2

4.0 SAMPLING PROCEDURES AND DATA

A sampling grid was established and biased towards various areas of the buildings that were formerly used for industrial manufacturing as opposed to warehousing or office space. Areas that were industrial in nature have visual evidence of ink staining and related mechanical equipment. The areas sampled during previous investigation activities are shown on **Figure 2**.

PCB samples were obtained by coring the top 0.5-inches of the concrete surfaces of the floors and walls. The samples were prepared in the laboratory using a soxhlet extraction technique and analyzed by GC/MS via EPA Method 8082.

Many areas were sampled in groups of four 25 square foot cells and composited. The resultant data values were then multiplied by a factor of 4 times. **Figure 2** distinguishes between both composited and discrete samples.

5.0 CLEANUP PLAN

To make the site more attractive to a potential developer for commercial/industrial redevelopment of the Site, the City of St. Albans plans to demolish all existing vacant buildings but leave the PCB-impacted concrete floor slab in place. This will provide a prospective redeveloper with the flexibility to either remediate and reuse the PCB-impacted concrete slab or demolish and remove the slab. Either way, the future developer will be required to take corrective action measures to address PCB-impacted concrete before Site redevelopment. Though the current Site use is "low occupancy" it is likely that it will change following redevelopment to "high occupancy". Therefore, prior to redevelopment, a cleanup plan in accordance with 761.61 based on the appropriate low/high occupancy use will be submitted to EPA for approval.

PCBs associated with the building above the concrete floor level and outside of the building will be managed in accordance with the SIP (pending approval). The proposed risk-based plan, supplementing the SIP, is intended to address specifically the PCBs in the concrete slab in Building #1 and Building #2. It is intended as a temporary measure until a redevelopment plan is selected. The following items presented below are intended to provide engineering and institutional controls to mitigate exposure pathways and manage risk associated with the physical act of demolition of the building and the concrete floor slab that will remain in place.

Contract drawings and specifications to complete this work, stamped and dated February 17, 2011, are currently out to bid. Select sections of the specifications (01014 - Scope and Sequence, 01020 - Subsurface and Environmental Controls and 02220 - Demolition) are included in **Appendix B**. Select contract drawings, Environmental Protections and Utility Cut/Cap (**Figure 3**) and Demolition Plan and Corrective Actions (**Figure 4**) are provided in the Figures section.

Item 1: Temporary Fencing

Prior to commencement of demolition and abatement activities the contractor will secure the Site with an 8-foot high temporary chain link fence with mesh fabric and associated swing gates, as shown on the attached **Figure 3** drawing.

Item 2: Environmental Protections

The contractor shall construct anti-tracking and decon pads at the Site entrance/egress gates as shown on the attached **Figure 3** drawing. Erosion and sediment control such as catch basin protection, haybales and silt fencing shall be installed as shown. Erosion and sediment control measures shall be furnished, installed, maintained and replaced by the Contractor as needed to ensure that sediment laden water/surface runoff does not leave the Limits of Work.

Item 3: Water Control

During demolition and excavation activities, it is anticipated that stormwater runoff will enter building sumps, trenches and open excavations. This water will be directed to a fractionation tank/treatment system, sampled and discharged to the wastewater system in accordance with any Public Works Department (PWD) and wastewater treatment facility (WWTF) permits and water quality monitoring requirements.

Item 4: Pre-Demolition Cleaning

Prior to demolition and abatement activities the contractor shall perform an initial floor scraping and moist cleaning to the extents shown the on the attached **Figure 4** drawing and as indicated in Specification Section 02220, including the entire main room of Building #1 and the printing and the printing and hazardous waste storage rooms in Building #2.

Item 5: Restricted Zones

Post cleaning and prior to demolition the contractor will place 2 layers of 10-mil nylon-reinforced polyethylene (NRPE) sheeting over "Restricted Zones" areas of the floor slab and secure edges of NRPE sheeting with adhesive. For the purpose of the contract documents, the Restricted Zone has been defined as areas of the concrete slab identified in the SIP that have corrected x4 concentrations of PCBs greater then 10 mg/kg in the top 0.5" of concrete. The Restricted Zones shall be clearly marked and access will be limited to foot traffic only when required during abatement /demolition activities. The extents of the restricted zones are shown on the attached **Figure 3** drawing, and as indicated in Specification Section 02220.

Item 6: Post Demolition Cleaning

Post demolition, the contractor shall clean the entire remaining concrete slab until free of dust, dirt, debris, or residue using wet cleaning methods, a wet spray power vacuum street sweeper will be allowed to be used on remaining floor slab, as appropriate. The restricted areas will be cleaned in a separate event with decontamination of equipment in between.

Item 7: Post Demolition Long-term Protective Measures

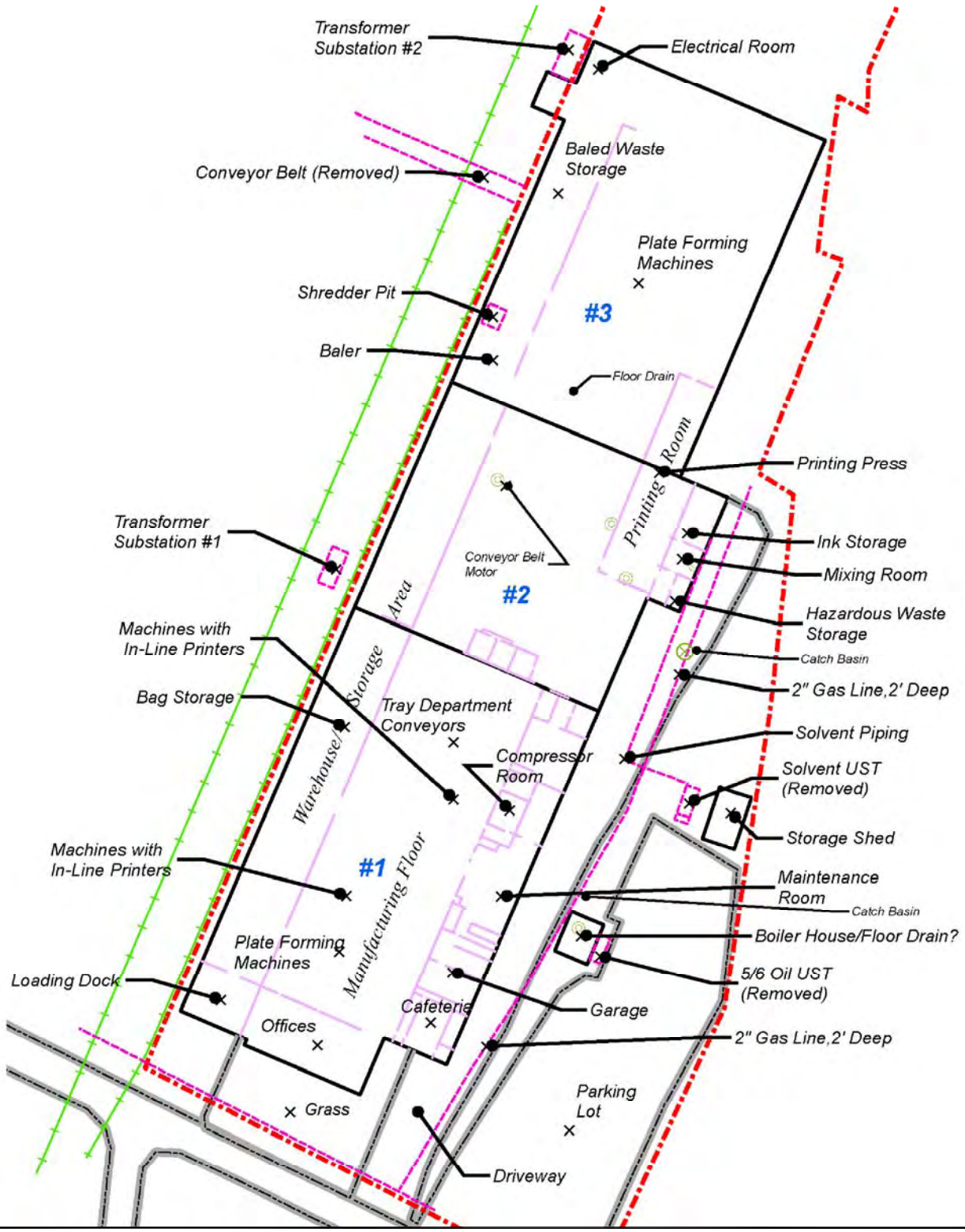
Prior to removing the temporary construction fence the contractor shall permanently secure the areas of the concrete slab that have concentrations of PCBs greater than 10 mg/kg, this includes the entire main room of Building #1 and the printing and hazardous waste storage rooms in Building #2, as shown on the attached **Figure 4** drawing. The securing measures will include:

- Placing 2 layers of 10-mil NRPE sheeting and securing the edges with adhesive.
- Placing 2-inches of processed gravel over the NRPE sheeting.
- Erecting a permanent 8-foot chain link fence with mesh fabric and locking pedestrian gates with affixed ML PCB signage.
- Finally, placing haybales around the perimeter of the fence to prevent erosion.

Item 8: Deed Restriction

A deed restriction will be filed to prevent a future owner from using the slab without properly addressing the areas that are contaminated by PCBs; the deed restriction will include a survey of the slab, which shows the contaminated portions of the slab and a listing of the PCB concentrations. The survey will be produced on Mylar and will be filed with the deed restriction in the City of St. Albans Land Records.

Figures



DATA SOURCES:

1. JOHNSON CO. SELF IMPLEMENTING CLEANUP PLAN JULY 30, 2010

FIGURE 1
FORMER SOLO/FONDA CONTAINER FACILITY

SITE PLAN

SCALE: 1"=100'

0 100 200

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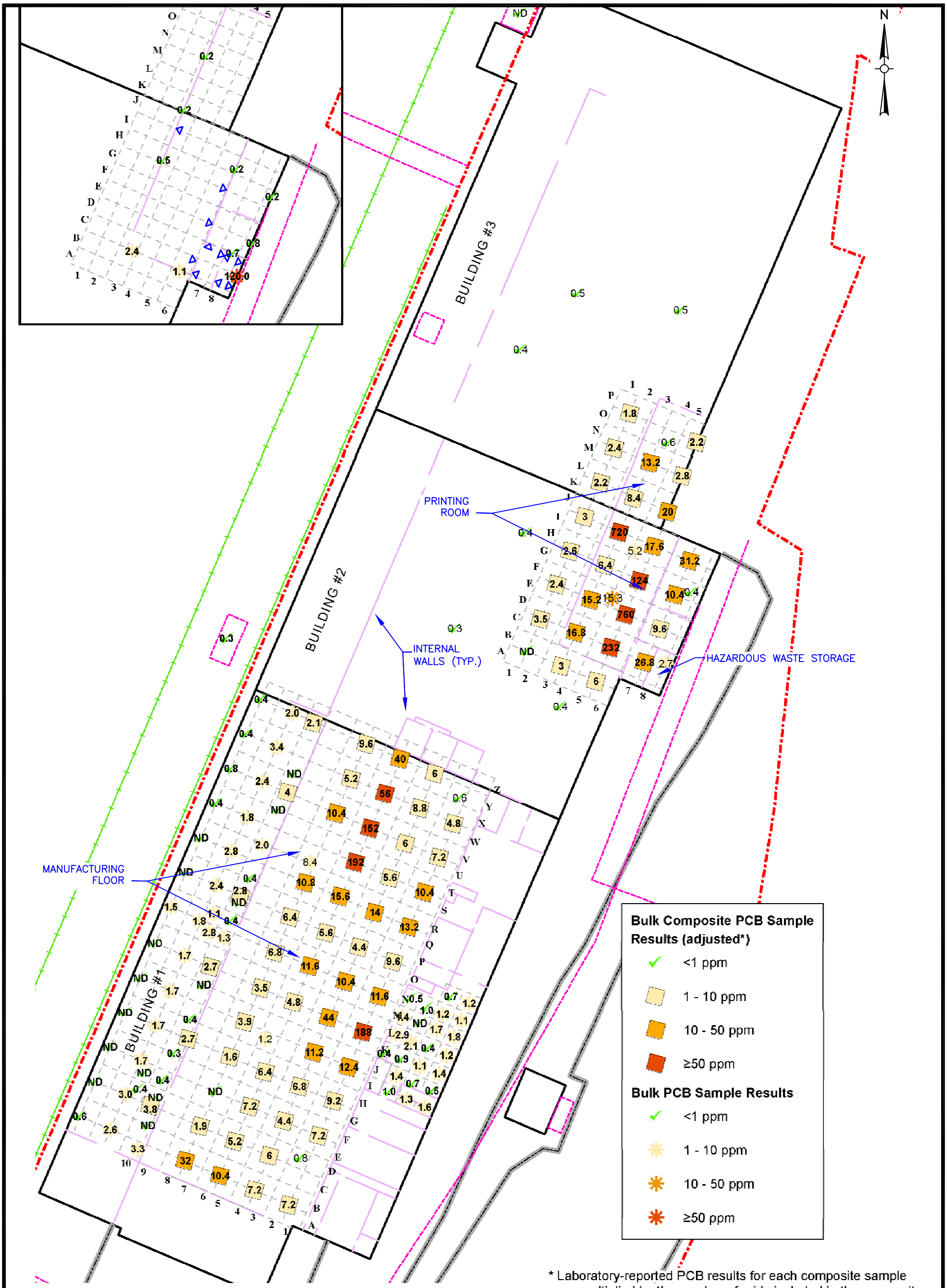

* Laboratory-reported PCB results for each composite sample were multiplied by the number of grids included in the composite sample, and the resulting adjusted numbers are shown on this figure (a TSCA procedure to represent a conservative worst-case scenario).

DATA SOURCES:

1. JOHNSON CO. SELF IMPLEMENTING CLEANUP PLAN JULY 30, 2010.
2. NAIP 2003 ORTHOPHOTOGRAPH, ST ALBANS NW
3. "FACILITY PLAN: THE FONDA GROUP, INC. BY NEW ENGLAND AIR QUALITY TESTING, 3/19/01.

FIGURE 2

FORMER SOLO/FONDA CONTAINER FACILITY

EXISTING PCB SAMPLING LOCATIONS AND RESULTS

SCALE: 1"=50'

0 50 100

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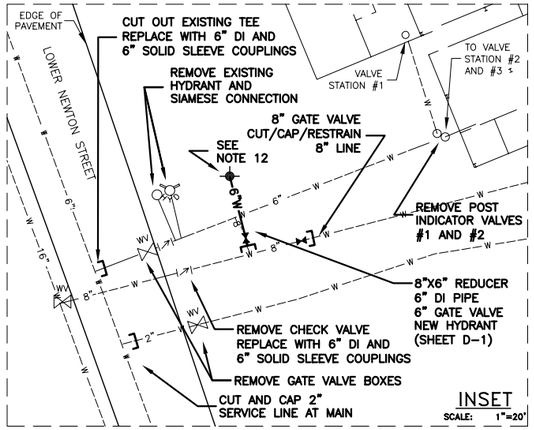

LEGEND:

RESTRICTED ZONE – LOCATE, MARK AND LIMIT ACCESS PER SPECIFICATION SECTION 02220

8-FOOT TEMPORARY CHAIN LINK FENCE ALONG PROPERTY LINE SEE SHEET G-1 AND D-2

SEE R.O.W USE RESTRICTIONS ON SHEET TM-1 AND NOTE 14

CATCH BASIN PROTECTION (TYP.) SEE SHEET D-1

REMOVE AND DISPOSE OF TRANSFORMERS PER SPECIFICATIONS, SEE NOTES 4 AND 12

CUT AND CAP WATER UTILITY, SEE NOTE 3, 5, AND 12

CUT ALL ROOF DRAINS FLUSH WITH SLAB AND PLUG PER NOTE 13

LOCATE AND PROTECT ALL MONITORING WELLS (TYP.)

CLEAN SEDIMENT FROM FLOOR DRAIN PER SPECIFICATION SECTION 02222 AND 02282 AND PLUG PER NOTE 13

CUT SEWER PIPING IN RESTROOMS FLUSH WITH SLAB AND PLUG SEWER PER NOTE 13

RESTRICTED ZONE – LOCATE, MARK AND LIMIT ACCESS PER SPECIFICATION SECTION 02220 (TYP.)

HAYBALES AND SILT FENCE (TYP.)

CUT FLUSH WITH SLAB AND PLUG SEWER PER NOTE 13

CUT ALL ROOF DRAINS FLUSH WITH SLAB AND PLUG PER NOTE 13

CATCH BASIN PROTECTION (TYP.) SEE SHEET D-1

REMOVE ONSITE HYDRANT (SEE NOTE 9)

PROTECT TREES

APPROXIMATE LOCATION OF UNDERGROUND COMMUNICATION CABLE

TEMPORARY CHAIN LINK GATE (TYP.)

DECON PAD SEE SHEETS TM-1 AND D-2

CUT AND CAP WATER UTILITIES SEE INSET AND NOTES 3 AND 5

ANTI-TRACKING SEE SHEETS TM-1 AND D-1 (TYP)

HAYBALES AND SILT FENCE (TYP.)

LIMIT OF WORK

8-FOOT TEMPORARY CHAIN LINK FENCE SEE SHEET G-1 AND D-2

"DUMP AREA"

HAYBALES AND SILT FENCE (TYP.)

PERFORM EXPLORATORY TEST PITS IN THE PRESENCE OF THE PWD TO LOCATE SEWER PRIOR TO BEGINNING DUMP AREA EXCAVATION. INCLUDE LOCATION OF SEWER, WITH GPS COORDINATES, IN FINAL AS-BUILTS

BUILDING #1 BUILDING #2 BUILDING #3

LOADING DOCK

TRANSFORMER SUBSTATION #2

ELECTRICAL ROOM

SHREDDER PIT

MONITORING WELL (APPROXIMATE LOCATION (TYP.)

VALVE STATION 6 & 7

TRANSFORMER SUBSTATION #1

FLOOR DRAIN

PRINTING PRESS ROOM

INK STORAGE ROOM

MIXING ROOM

VALVE STATION #4 & 5

VALVE STATION #3

VALVE STATION #1

VALVE STATION #2

GARAGE

POST INDICATOR VALVES

OVERHEAD CRANE

BOILER HOUSE

WD. SHED

HAZARDOUS WASTE STORAGE ROOM

APPROXIMATE PROPERTY LINE

BITUMINOUS PAVEMENT

5/6 OIL UST (REMOVED)

RAMP

DOCKS

ROOF OVERHANG

MW-1 MW-2 MW-3 MW-4 MW-5 MW-6 MW-7 MW-8 MW-9 MW-10 MW-11 MW-12 MW-13D MW-13S MW-14S MW-15D MW-15S MW-16

LOWER NEWTON STREET

PLAN
SCALE: 1"=30'

30 15 0 30 60
SCALE: 1"=30'

NOTES:

1. CONTRACTOR SHALL PROVIDE HAYBALES AND SILT FENCE ALONG BASE OF TEMPORARY FENCING AS SHOWN ON THIS DRAWING.
2. THE CONTRACTOR SHALL MAKE ALL NECESSARY APPLICATIONS AND ARRANGEMENTS FOR TEMPORARY UTILITY SERVICE. THE CONTRACTOR SHALL PROVIDE AND PAY FOR ALL TEMPORARY WIRING, SWITCHES, CONNECTIONS, METERS, AND SERVICE. THE CONTRACTOR SHALL INSTALL TEMPORARY ELECTRICAL SERVICE AT A LOCATION APPROVED BY THE ENGINEER AND OWNER.
3. PIPING SHALL BE ABANDONED, CUT, CAPPED, REMOVED AND DISPOSED IN ACCORDANCE WITH THE CONTRACT DRAWINGS AND SPECIFICATION SECTION 02222. FOR CAPPED/PLUGGED UTILITY PIPES, CONTRACTOR SHALL PROVIDE DETECTABLE TRACER TAPE AND AN OAK MARKER ABOVE THE CAPPED/PLUGGED END.
4. CONTRACTOR SHALL COORDINATE WITH CENTRAL VERMONT PUBLIC SERVICE FOR DISCONNECTION AND REMOVAL OF EXISTING ELECTRICAL UTILITY, ASSOCIATED TRANSFORMERS, CONDUIT GUY WIRE, OVERHEAD WIRE, BURIED WIRE/CONDUIT FROM THE BUILDINGS AND LIGHT POLES AND ASSOCIATED UNDERGROUND ELECTRICAL CONDUITS AS SHOWN ON THE CONTRACT DRAWINGS AND DESCRIBED IN SPECIFICATION SECTION 02222.
5. CONTRACTOR SHALL COORDINATE WITH ST. ALBANS PUBLIC WORKS DEPARTMENT (PWD) TO CONFIRM THAT WATER SERVICE TO THE PROPERTY HAS BEEN DISCONNECTED. CONTRACTOR SHALL REMOVE WATER SERVICE AND CUT AND CAP PIPING AS SHOWN ON THE CONTRACT DRAWINGS AND DESCRIBED IN SPECIFICATION SECTION 02222 AND PER SHEET D-1. ALL CUTTING AND CAPPING OF WATER PIPING AT THE SITE SHALL BE INSPECTED BY THE ST. ALBANS PWD. SEE NOTE 9 FOR WATER SERVICE TO THE ON-SITE HYDRANT. SEE SPECIFICATION SECTION 02745 FOR PAVING AND SIDEWALK RESTORATION REQUIREMENTS.
6. CONTRACTOR SHALL DISCONNECT AND CAP SEWER UTILITY SERVICE AT THE LOCATIONS SHOWN, IN ACCORDANCE WITH SPECIFICATION SECTION 02222, CONTRACTOR SHALL INSTALL A CONCRETE PLUG AT THE OPEN ENDS OF THE SEWER PIPING.
7. CONTRACTOR SHALL COORDINATE TERMINATION AND CUT/CAP OF GAS SERVICE TO THE BUILDINGS WITH VERMONT GAS SYSTEMS, INC., AND PER SPECIFICATION SECTION 02222 AND PAY ALL COSTS ASSOCIATED WITH GAS SERVICE TERMINATION.
8. CONTRACTOR SHALL COORDINATE DISCONNECTION AND REMOVAL OF TELEPHONE AND CABLE SERVICE TO THE BUILDINGS WITH APPROPRIATE UTILITY COMPANIES (FAIRPOINT, VERIZON, COMCAST, ETC.) AND SHALL PAY ALL COSTS ASSOCIATED WITH TELEPHONE/CABLE SERVICE TERMINATION. CONTRACTOR SHALL CUT, CAP, AS SHOWN ON THE CONTRACT DRAWINGS AND DESCRIBED IN SPECIFICATION 02222.
9. CONTRACTOR SHALL DISCONNECT AND REMOVE ONSITE HYDRANT AFTER DEMOLITION OF THE BUILDINGS. THE CONTRACTOR SHALL COORDINATE THE HYDRANT TERMINATION WITH THE ST. ALBANS PWD AND SHALL PAY ALL COSTS ASSOCIATED WITH THE HYDRANT TERMINATION. SEE SPECIFICATION SECTION 02222 FOR ADDITIONAL REQUIREMENTS.
10. THE CONTRACTOR SHALL PROTECT ALL UTILITIES IN LOWER NEWTON STREET AND ADJACENT PROPERTIES FROM DAMAGE AND UNDERMINING DURING EXCAVATION.
11. CONTRACTOR SHALL COORDINATE WITH CENTRAL VERMONT RAILWAY AND OBTAIN ANY NECESSARY PERMITS TO ACCESS R.O.W. PROPERTY TO COMPLETE WORK ALONG WESTERN SIDE OF THE PROJECT AREA SUBJECT TO THE RESTRICTIONS SHOWN ON SHEET TM-1.
12. CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING HYDRANT AND SIAMESE CONNECTION BETWEEN BUILDING #1 AND LOWER NEWTON STREET AND REPLACE WITH A NEW HYDRANT MODEL KENNEDY K-81, OPEN RIGHT. COORDINATE FINAL LOCATION AND COLOR OF THE NEW HYDRANT WITH THE ST. ALBANS PWD AND ST ALBANS FIRE DEPARTMENT.
13. CONTRACTOR SHALL PLUG ALL OPEN ENDS OF PIPES AND PENETRATIONS IN THE FLOOR SLABS OR BASEMENT WALLS AND FLOORS, WITH THE EXCEPTION OF MOUNTING WALLS, WITH 12 INCHES OF 3,000 PSI CEMENT CONCRETE AND NON-SHRINK GROUT IN ACCORDANCE WITH SPECIFICATION SECTION 02222.
14. CONTRACTOR SHALL COORDINATE PLACEMENT OF OFFICE TRAILERS AND SANITARY STATIONS WITH CITY OF ST. ALBANS.

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No.	Date	Description	Dr.By	Ck.By	App.By
A	P	P	R	O	V	E	D	DATE

REGISTERED PROFESSIONAL ENGINEER

CITY OF ST. ALBANS
ST. ALBANS, VERMONT

FORMER SOLO / FONDA CONTAINER FACILITY – BROWNFIELDS CLEANUP

ENVIRONMENTAL PROTECTIONS AND UTILITY CUT / CAP

DR.BY	DSN.BY	CHK.BY	APP.BY
KKM	KKM/PVJ	DOH	K.JB

JOB NO.	CONTRACT:	SCALE:	CADD NO.
2100660	No. 1	AS NOTED	185-78

F-3

FILE NO. --

SHEET 3 OF 4

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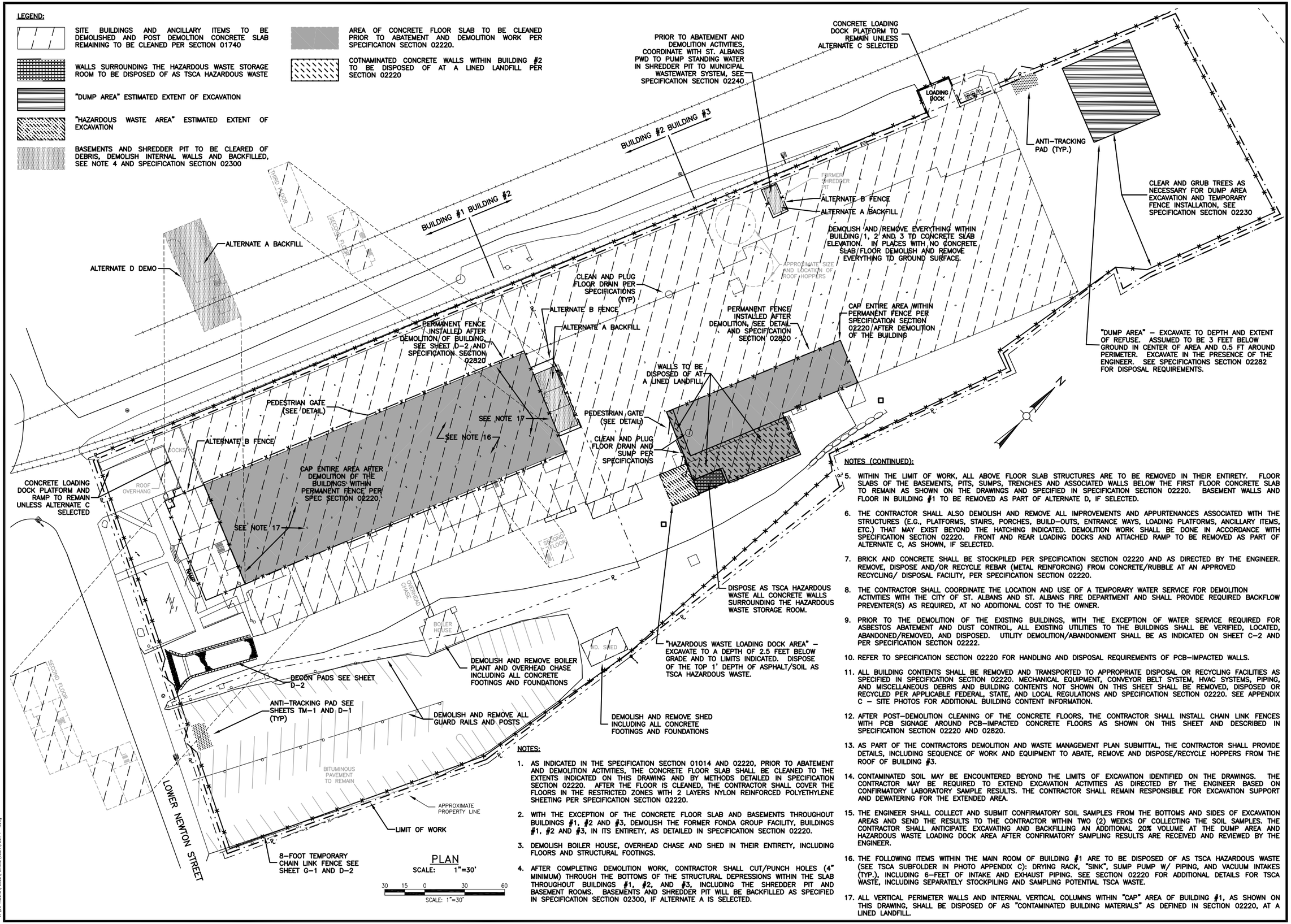
LEGEND:

- SITE BUILDINGS AND ANCILLARY ITEMS TO BE DEMOLISHED AND POST DEMOLITION CONCRETE SLAB REMAINING TO BE CLEANED PER SECTION 01740
- WALLS SURROUNDING THE HAZARDOUS WASTE STORAGE ROOM TO BE DISPOSED OF AS TSCA HAZARDOUS WASTE
- "DUMP AREA" ESTIMATED EXTENT OF EXCAVATION
- "HAZARDOUS WASTE AREA" ESTIMATED EXTENT OF EXCAVATION
- BASEMENTS AND SHREDDER PIT TO BE CLEARED OF DEBRIS, DEMOLISH INTERNAL WALLS AND BACKFILLED, SEE NOTE 4 AND SPECIFICATION SECTION 02300
- AREA OF CONCRETE FLOOR SLAB TO BE CLEANED PRIOR TO ABATEMENT AND DEMOLITION WORK PER SPECIFICATION SECTION 02220.
- COTNAMINATED CONCRETE WALLS WITHIN BUILDING #2 TO BE DISPOSED OF AT A LINED LANDFILL PER SECTION 02220



PLAN
SCALE: 1"=30'

30 15 0 30 60
SCALE: 1"=30'

NOTES:

1. AS INDICATED IN THE SPECIFICATION SECTION 01014 AND 02220, PRIOR TO ABATEMENT AND DEMOLITION ACTIVITIES, THE CONCRETE FLOOR SLAB SHALL BE CLEANED TO THE EXTENTS INDICATED ON THIS DRAWING AND BY METHODS DETAILED IN SPECIFICATION SECTION 02220. AFTER THE FLOOR IS CLEANED, THE CONTRACTOR SHALL COVER THE FLOORS IN THE RESTRICTED ZONES WITH 2 LAYERS NYLON REINFORCED POLYETHYLENE SHEETING PER SPECIFICATION SECTION 02220.
2. WITH THE EXCEPTION OF THE CONCRETE FLOOR SLAB AND BASEMENTS THROUGHOUT BUILDINGS #1, #2 AND #3, DEMOLISH THE FORMER FONDA GROUP FACILITY, BUILDINGS #1, #2 AND #3, IN ITS ENTIRETY, AS DETAILED IN SPECIFICATION SECTION 02220.
3. DEMOLISH BOILER HOUSE, OVERHEAD CHASE AND SHED IN THEIR ENTIRETY, INCLUDING FLOORS AND STRUCTURAL FOOTINGS.
4. AFTER COMPLETING DEMOLITION WORK, CONTRACTOR SHALL CUT/PUNCH HOLES (4" MINIMUM) THROUGH THE BOTTOMS OF THE STRUCTURAL DEPRESSIONS WITHIN THE SLAB THROUGHOUT BUILDINGS #1, #2, AND #3, INCLUDING THE SHREDDER PIT AND BASEMENT ROOMS. BASEMENTS AND SHREDDER PIT WILL BE BACKFILLED AS SPECIFIED IN SPECIFICATION SECTION 02300, IF ALTERNATE A IS SELECTED.

NOTES (CONTINUED):

5. WITHIN THE LIMIT OF WORK, ALL ABOVE FLOOR SLAB STRUCTURES ARE TO BE REMOVED IN THEIR ENTIRETY. FLOOR SLABS OF THE BASEMENTS, PITS, SUMPS, TRENCHES AND ASSOCIATED WALLS BELOW THE FIRST FLOOR CONCRETE SLAB TO REMAIN AS SHOWN ON THE DRAWINGS AND SPECIFIED IN SPECIFICATION SECTION 02220. BASEMENT WALLS AND FLOOR IN BUILDING #1 TO BE REMOVED AS PART OF ALTERNATE D, IF SELECTED.
6. THE CONTRACTOR SHALL ALSO DEMOLISH AND REMOVE ALL IMPROVEMENTS AND APPURTENANCES ASSOCIATED WITH THE STRUCTURES (E.G., PLATFORMS, STAIRS, PORCHES, BUILD-OUTS, ENTRANCE WAYS, LOADING PLATFORMS, ANCILLARY ITEMS, ETC.) THAT MAY EXIST BEYOND THE HATCHING INDICATED. DEMOLITION WORK SHALL BE DONE IN ACCORDANCE WITH SPECIFICATION SECTION 02220. FRONT AND REAR LOADING DOCKS AND ATTACHED RAMP TO BE REMOVED AS PART OF ALTERNATE C, AS SHOWN, IF SELECTED.
7. BRICK AND CONCRETE SHALL BE STOCKPILED PER SPECIFICATION SECTION 02220 AND AS DIRECTED BY THE ENGINEER. REMOVE, DISPOSE AND/OR RECYCLE REBAR (METAL REINFORCING) FROM CONCRETE/RUBBLE AT AN APPROVED RECYCLING/ DISPOSAL FACILITY, PER SPECIFICATION SECTION 02220.
8. THE CONTRACTOR SHALL COORDINATE THE LOCATION AND USE OF A TEMPORARY WATER SERVICE FOR DEMOLITION ACTIVITIES WITH THE CITY OF ST. ALBANS AND ST. ALBANS FIRE DEPARTMENT AND SHALL PROVIDE REQUIRED BACKFLOW PREVENTER(S) AS REQUIRED, AT NO ADDITIONAL COST TO THE OWNER.
9. PRIOR TO THE DEMOLITION OF THE EXISTING BUILDINGS, WITH THE EXCEPTION OF WATER SERVICE REQUIRED FOR ASBESTOS ABATEMENT AND DUST CONTROL, ALL EXISTING UTILITIES TO THE BUILDINGS SHALL BE VERIFIED, LOCATED, ABANDONED/REMOVED, AND DISPOSED. UTILITY DEMOLITION/ABANDONMENT SHALL BE AS INDICATED ON SHEET C-2 AND PER SPECIFICATION SECTION 02222.
10. REFER TO SPECIFICATION SECTION 02220 FOR HANDLING AND DISPOSAL REQUIREMENTS OF PCB-IMPACTED WALLS.
11. ALL BUILDING CONTENTS SHALL BE REMOVED AND TRANSPORTED TO APPROPRIATE DISPOSAL OR RECYCLING FACILITIES AS SPECIFIED IN SPECIFICATION SECTION 02220. MECHANICAL EQUIPMENT, CONVEYOR BELT SYSTEM, HVAC SYSTEMS, PIPING, AND MISCELLANEOUS DEBRIS AND BUILDING CONTENTS NOT SHOWN ON THIS SHEET SHALL BE REMOVED, DISPOSED OR RECYCLED PER APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS AND SPECIFICATION SECTION 02220. SEE APPENDIX C – SITE PHOTOS FOR ADDITIONAL BUILDING CONTENT INFORMATION.
12. AFTER POST-DEMOLITION CLEANING OF THE CONCRETE FLOORS, THE CONTRACTOR SHALL INSTALL CHAIN LINK FENCES WITH PCB SIGNAGE AROUND PCB-IMPACTED CONCRETE FLOORS AS SHOWN ON THIS SHEET AND DESCRIBED IN SPECIFICATION SECTION 02220 AND 02820.
13. AS PART OF THE CONTRACTORS DEMOLITION AND WASTE MANAGEMENT PLAN SUBMITTAL, THE CONTRACTOR SHALL PROVIDE DETAILS, INCLUDING SEQUENCE OF WORK AND EQUIPMENT TO ABATE, REMOVE AND DISPOSE/RECYCLE HOPPERS FROM THE ROOF OF BUILDING #3.
14. CONTAMINATED SOIL MAY BE ENCOUNTERED BEYOND THE LIMITS OF EXCAVATION IDENTIFIED ON THE DRAWINGS. THE CONTRACTOR MAY BE REQUIRED TO EXTEND EXCAVATION ACTIVITIES AS DIRECTED BY THE ENGINEER BASED ON CONFIRMATORY LABORATORY SAMPLE RESULTS. THE CONTRACTOR SHALL REMAIN RESPONSIBLE FOR EXCAVATION SUPPORT AND DEWATERING FOR THE EXTENDED AREA.
15. THE ENGINEER SHALL COLLECT AND SUBMIT CONFIRMATORY SOIL SAMPLES FROM THE BOTTOMS AND SIDES OF EXCAVATION AREAS AND SEND THE RESULTS TO THE CONTRACTOR WITHIN TWO (2) WEEKS OF COLLECTING THE SOIL SAMPLES. THE CONTRACTOR SHALL ANTICIPATE EXCAVATING AND BACKFILLING AN ADDITIONAL 20% VOLUME AT THE DUMP AREA AND HAZARDOUS WASTE LOADING DOCK AREA AFTER CONFIRMATORY SAMPLING RESULTS ARE RECEIVED AND REVIEWED BY THE ENGINEER.
16. THE FOLLOWING ITEMS WITHIN THE MAIN ROOM OF BUILDING #1 ARE TO BE DISPOSED OF AS TSCA HAZARDOUS WASTE (SEE TSCA SUBFOLDER IN PHOTO APPENDIX C): DRYING RACK, "SINK", SUMP PUMP W/ PIPING, AND VACUUM INTAKES (TYP.), INCLUDING 6-FEET OF INTAKE AND EXHAUST PIPING. SEE SECTION 02220 FOR ADDITIONAL DETAILS FOR TSCA WASTE, INCLUDING SEPARATELY STOCKPILING AND SAMPLING POTENTIAL TSCA WASTE.
17. ALL VERTICAL PERIMETER WALLS AND INTERNAL VERTICAL COLUMNS WITHIN "CAP" AREA OF BUILDING #1, AS SHOWN ON THIS DRAWING, SHALL BE DISPOSED OF AS "CONTAMINATED BUILDING MATERIALS" AS DEFINED IN SECTION 02220, AT A LINED LANDFILL.

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A	P	P	R	O	V	E	D	DATE

REGISTERED PROFESSIONAL ENGINEER

CITY OF ST. ALBANS
ST. ALBANS, VERMONT

FORMER SOLO / FONDA CONTAINER FACILITY – BROWNFIELDS CLEANUP

DEMOLITION PLAN AND CORRECTIVE ACTIONS

CADD NO.	SCALE:	CONTRACT:	JOB NO.	DR.BY	DSN.BY	CHK.BY	APP.BY
185-77	AS NOTED	No. 1	2100660	KKM	KKM/PWJ	DCH	KJB

F-4

FILE NO. --

SHEET 4 OF 4

V:\St. Albans\Fonda\Permits\TSCA\TSCA F-4.dwg

Appendix A

Site Photos

Former Solo / Fonda Container Facility

City of St. Albans, Vermont

Photo #1

Photo #2

Photo #3

Photo #4

Photo #5

Photo #6

Photo #7

Photo #8

Photo #9

Appendix B

SELECTED DEMOLITION CONTRACT SPECIFICATIONS

SECTION 01014 - SCOPE AND SEQUENCE OF WORK

SECTION 01020 - SUBSURFACE AND ENVIRONMENTAL DATA

SECTION 02220 - DEMOLITION

SECTION 01014

SCOPE AND SEQUENCE OF WORK

PART 1 – GENERAL

1.01 WORK INCLUDED

A. As indicated in the Contract Drawings and Specifications, the scope of the proposed work includes abatement of hazardous materials, demolition and environmental corrective actions at the "Former Solo/Fonda Container Facility" located at 15-21 Lower Newton Street in the City of St. Albans, Vermont ("Site"). The property consists of two parcels, Lot 15 (1.779 Acres) and Lot 21 (3.729 Acres), for a total area of approximately 5.5 acres.

The Site is composed of a former paper product manufacturing facility (currently vacant), a separate boiler house, storage shed, surrounding parking areas and driveways, and a forested area to the north of the building. The building formerly housed the Fonda Group Facility (later Solo Cup), which formed plates from paper stock and printed on the plates. The manufacturing facility closed in late 2005, and the City of St. Albans purchased the property in 2007. The building is composed of three parts, which are referred to as Building #1, #2, and #3, dating from 1942, 1953, and 1957 respectively, and has a total approximate area of 118,300 square feet. The Site structures are described as:

Building #1: An approximately 43,680 square foot (sf) building of wood and steel frame structure with slab on grade construction, located at the southern end of the facility with frontage along Lower Newton Street. Historically this building housed offices, paper product production machines, a loading dock, maintenance areas, and a cafeteria. The portion of the building along Lower Newton Street has a basement, bathrooms, foyer and second floor offices. It has a flat roof, two-story front block with a covered loading dock at the southwest corner. A large, one-story open work area is located to the north of the offices and has a sawtooth roof that is flanked on the west by a long storage shed, and on the east by a flat roof appendage that parallels the length of the central sawtooth section.

Building #2: A one-story, approximately 27,540 sf building that extends from the north end of Building #1 and joins with Building #3. Building #2 is a steel and concrete block, flat roof structure that is slightly higher than both Buildings #1 and #3. The building is slab-on-grade construction, comprising of concrete reinforced with wire mesh. Building #2 formerly housed paper products manufacturing equipment, a loading dock, a hazardous waste storage room, an ink storage/mixing room, and printer equipment. It has two small appendages that project from the east elevation and tall bands of steel windows at the northeast corner set high on the wall plane. Loading doors are located on the west elevation adjacent to the railroad tracks.

Building #3: An approximately 38,880 sf building, located on the north end of the facility. Paper product manufacturing equipment, a printing area, the paper shredder, a loading dock, and the warehouse were housed in at Building #3. The building is slab-on-grade construction, comprising of concrete reinforced with wire mesh and is similar to Building #2 with its steel and concrete block construction. It has various loading doors on all elevations and an open interior.

Boiler House, c. 1955
This small, concrete block, 616 sf, flat roof boiler house is built into the bank on the east side of the property. A narrow overhead connector between the boiler house and Building #1 formerly provided power to the factory.

Storage Shed, c. 1950
A wood frame, novelty sided, gable roof shed located at the northeast corner of the site.

B. The Contractor shall furnish all labor, materials and equipment, and incidentals, required to complete the work as shown in the Contract Drawings and specified herein. The scope of the proposed work includes the abatement of hazardous materials, building demolition, and environmental remediation. The scope of work under this Contract is specified in detail in the appropriate sections of these Specifications and on the Contract Drawings and includes, but is not limited to, the following:

1. Apply for, pay for and obtain all necessary permits required, including but not limited to those listed in Section 00890 - Permits, by Local, State, and Federal agencies having jurisdiction over work for successful completion of this Contract.

2. Supply all submittals required by Section 01330 - Submittals and those required to proceed with the completion of this scope, including shop and working drawings, Health and Safety Plan, Demolition and Waste Management Plan, Utility Abandonment Plan, Excavated Materials Management Plan (EMMP), and copies of all accepted permits.

3. Provide an 8-foot high temporary chain link fence with mesh fabric and associated swing gates, prior to the start of construction activities as shown on the Contract Drawings and described in Section 02821 – Temporary Chain Link Fencing.

4. Furnish and install the appropriate signage as described in these Specifications;

5. Furnish and install Construction Trailer as described in these Specifications.

6. Construct anti-tracking and decon pads at the Site entrance/egress gates as shown on the Contract Drawings. Erosion and sediment control shall be installed as shown on the Contract Drawings and described in these

Specifications. This shall include catch basin protection, haybales and silt fencing as shown on the Contract Drawings, and any additional measures that may be required or as determined by Engineer. Erosion and sediment control measures shall be furnished, installed, maintained and replaced by the Contractor as needed to ensure that sediment laden water/surface runoff does not leave the Limits of Work. Repair and replace any materials that are to be left in place at the end of the Project as directed by the Engineer.

7. Provide all temporary utilities and obtain applicable permits that are anticipated for use during the completion of the Project, including electricity, and temporary water service, if required.

8. In accordance with Section 02240 – Dewatering, the Contractor shall establish dewatering treatment system, as required, to treat pumped water from the Site to meet applicable discharge permits or dispose pumped water off-Site at an applicable disposal facility. Coordinate with the City of St. Albans Public Works Department (PWD), as required. Pump standing water from the "Shredder Pit" in Building #3 to dewatering treatment system or dispose of off-Site at an applicable disposal facility prior to abatement or demolition activities. See Section 02240 – Dewatering for detail.

9. Employ real-time dust monitoring utilizing a Mini-Ram (or similar model). If dust, pollutant, noise, or odor levels exceed those levels outlined in the Contractor's Health and Safety Plan (see Section 01380), Section 01500 – Temporary Facilities and Controls, and/or Section 01562 – Dust Control, progress shall be halted and measures taken to alleviate the problem without additional cost to Owner.

10. Clear and grub area around "Dump Area" as shown on the Contact Drawings and within the Limit of Work for miscellaneous site work (i.e. installation of temporary fencing, etc.), including removal and disposal of trees and shrubs, per Section 02230 or as directed by the Engineer.

11. Remove and dispose sediment/soil/sludge from floor drains located throughout Buildings #1, #2 and #3 per Section 02282 – Handling, Transportation, and Off-Site Disposal of Excavated Material. Plug each floor drain, roof drain, and miscellaneous penetrations/holes (except for monitoring wells) in the first floor slab and below grade floor and walls that are to remain with concrete per Section 02222 – Utility Abandonment and applicable Vermont Department of Environmental Conservation (DEC) regulations.

12. Prior to abatement and demolition activities Contractor shall perform an initial floor cleaning to the extents shown the on the Contract Drawings and described in Section 02220 - Demolition.

13. Place 2 layers of 10-mil nylon-reinforced polyethylene (NRPE) sheeting over the Restricted Zone areas of the floor slab and secure edges of NRPE sheeting with adhesive as specified in Section 02220 – Demolition.

14. Cut/cap/remove/abandon utility services as designated on the Contract Drawings and described in these Specifications, including sewer, drain, gas, phone, electric and water as shown on Contract Drawings. The Contractor shall coordinate utility termination work with the applicable utility companies to ensure services have been shutoff. The Contractor shall be responsible for employing proper protection techniques for all excavations. The Contractor shall backfill and pave excavations in Lower Newton Street and Central Vermont Railway Right-of-Way (R.O.W) per St. Albans PWD and Vermont Agency of Transportation standards and as described in these Contract Documents. The Contractor shall keep the Site entrance/exit open and accessible at all times.

15. Abate and dispose all asbestos-containing and hazardous materials from designated buildings as described in Sections 02051 – Asbestos Abatement, 02075 – Universal and Hazardous Waste, and 13282 – Lead-Based Coatings Removal.

16. Excavate and dispose soil from designated areas as shown on Sheet C-3 of the Contract Drawings and in accordance with Section 02282 - Handling, Transportation, Reuse, and Off-Site Disposal of Excavated Material.

17. Demolish, remove and dispose of Buildings #1, #2 and #3, Boiler Plant, and Shed as shown on the Contract Drawings and described in Section 02220 – Demolition.

18. Remove and dispose all ancillary structures within the Limit of Work, including piles of debris and solid waste materials, building entrance structures, existing fences, stairs, platforms, and pads in accordance with the Contract Documents. Note: the loading dock platforms and associated ramps/stairs to remain as shown on the Contract Drawings, unless Alternative C (demolition of loading docks and associated ramps and stairs in their entirety) is selected.

19. Parking lots, driveways, sidewalks, and curbing shall remain, except were soil excavation activities beneath the parking lot/driveways are required, as shown on the Contract Drawings and described in these Specifications. The Contractor may pulverize pavements in-place or recycle per Section 02220 – Demolition.

20. Lawful disposal of, or recycle of, all demolition debris including, but not limited to: rubble, masonry, wood, plastic, concrete, electrical, metal, pavement, roofing materials, and other miscellaneous demolition debris from the Site. Recycling and reuse are strongly encouraged.

21. Backfill below grade areas (sumps, crawl spaces, trenches, etc.) within Buildings #1, #2, and #3 with Class B backfill as specified in Section 02300 – Earthwork except for the basement area in Building #1, basement area in Building #2, and the Shredder Pit in Building #3, as shown on the Contract

Drawings, which will be either filled with Class B backfill if Alternate A is selected or fenced with a permanent 8-foot chain link fence with mesh fabric if Alternate B is selected.

22. Backfill and grade Site as designated on the Contract Drawings and described in these Specifications. Excavations shall be backfilled with material per Section 02220 – Demolition, Section 02282 - Handling, Transportation, and Off-Site Disposal of Excavated Material, and Section 02300 - Earthwork.

23. Clean the entire remaining concrete slab until free of dust, dirt, debris, or residue using wet cleaning methods as described in Section 01740 – Cleaning Up and Section 02220 – Demolition. A wet spray power vacuum street sweeper will be allowed to be used on remaining floor slab, as appropriate.

24. Place 2 layers of 10-mil nylon-reinforced polyethylene (NRPE) sheeting, secure edges of NRPE sheeting with adhesive, and place 2-inches of processed gravel over the areas of the floor slab to be capped as shown on the Contract Drawings and as specified in Section 02220 – Demolition.

25. Erect a permanent 8-foot chain link fence with mesh fabric and locking pedestrian gates around areas to be capped as shown on the Contract Drawings.

26. Install PCB signage on chain link fencing per the Contract Drawings and Section 02820 – Chain Link Fencing;

27. Remove and dispose all miscellaneous trash and debris on the Site; and

28. Remove temporary electrical service and other temporary facilities, remove 8-foot high temporary chain link fence and mesh fabric, remove haybales and silt fencing, and remove silt traps used for trapping sediment in catchbasins, and leave the roads and all parts of the property and adjacent properties affected by the project in a neat and satisfactory condition.

A. Contractor's operations at the Site are restricted to the Limit of Work shown on the Contract Drawings and any additional constraints presented in these Specifications, except for work specified and indicated to occur beyond the Limit of Work (e.g. traffic control, catch basin protection, utility terminations in Lower Newton Street, utility termination in Central Vermont Railway R.O.W, removal of loading dock and transformers from Central Vermont Railway R.O.W, access to the Site, etc.).

B. By submitting a bid, the Contractor affirms having carefully examined the Site and all conditions affecting the Work. No claim for additional costs will be allowed because of lack of full knowledge of existing conditions.

PART 2 - PRODUCTS

Not Used.

PART 3 – EXECUTION

3.01 GENERAL

A. The Contractor shall be responsible for scheduling activities and the activities of any subcontractors involved, to meet the sequencing requirements described in Paragraph 1.01.B of this Section and the completion date established for the Contract. Scheduling of the work shall be coordinated with the Owner and Engineer.

B. Prior to performing any work at the Site, the Contractor shall submit a detailed scheduling plan to the Engineer for review per Section 01310 – Construction Scheduling. The plan shall describe the proposed sequence, methods, and timing of the work.

C. The schedule shall consist of a Gantt Chart showing the sequence of work described herein including permitting, submittal preparation, Site mobilization, Site work, project closeout, demobilization, and chart contract completion.

END OF SECTION

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SECTION 01020

SUBSURFACE AND ENVIRONMENTAL DATA

PART I - GENERAL:

1.01 SCOPE:

A. Subsurface investigations consisting of probes, borings, test pits and monitoring wells have been performed at the Site with reasonable care. A summary of soil and groundwater data is presented in the Phase II Environmental Site Assessment (Phase II), prepared by Johnson Company, dated October 2008, included in Appendix A and a Corrective Action Plan (CAP) prepared by Johnson Company, dated August 2, 2010, included in Appendix B of these Specifications. The historical environmental reports can be reviewed in their entirety upon request during the bidding period during normal working hours at the office of Weston & Sampson Engineers, Inc., 98 South Main Street, Waterbury, Vermont. The State of Vermont Department of Environmental Conservation has assigned the Site the following identification number: SMS#20083777. Additional reports can be found at the following website: (http://www.stalbansvt.com).

The Contractor shall review the Phase II Report and CAP and all other relevant information included in the Specification Sections herein provided by the Owner, examine all site conditions, and verify work items and quantities identified in the Contract Documents. In case of discrepancy between the Contract Documents and the CAP, the Contract Documents shall govern. In addition to the reports referenced above, refer to Section 01014 – Scope and Sequence of Work for Site history and building information.

B. Subsurface information provided in the Contract Documents is limited by the methods used for obtaining and expressing such data, and is subject to various interpretations. The terms used to describe soils, rock, groundwater and such other conditions are subject to local usage and individual interpretation.

C. The Contractor is advised that remedial actions are necessary at the Site due to the presence of polychlorinated biphenyls (PCBs), semi-volatile organic compounds (SVOCs), metals, and chlorinated volatile organic compounds (VOCs) in some soil above regulatory limits; chlorinated VOCs in some groundwater above regulatory limits; PCBs in some concrete at concentrations that exceed applicable Toxic Substances Control Act (TSCA) regulatory limits; and metals above regulatory limits in surface water within the shredder pit in Building #3. In addition, asbestos-containing materials and miscellaneous oil & hazardous materials have been detected at the Site. Refer to Specification Section 02051 – Asbestos Abatement and Specification Section 02075 – Universal and Hazardous Waste.

The scope of remedial measures are limited to those items described in Contract Documents, which include: 1.) removal of near surface soils that exceed the Federal Industrial Regional Screening Levels and TSCA regulatory limits; 2.) removal of of water in a shredder pit that exceeds Vermont Groundwater Enforcement Standards (VGES) for

cadmium and lead; and, 3.) removal of building walls that contain PCB concentrations above TSCA regulatory limits.

The source of contamination is attributed to the former Fonda Group Facility (SMS#20073773). Below is a summary of contamination at the Site based on the Phase II and CAP, refer to the reports in Appendices A and B, respectively, for details.

PCBs in Building Materials and Concrete:
PCBs are present above regulatory standards in the concrete floor slab in two general areas: inside the manufacturing area (where some printing presses were used) in Building #1; and in the Printing Area on the eastern side of Building #2, which formerly housed a large printing press, ink mixing room, and hazardous waste storage areas.

PCBs are present in some walls within Building #1 and Building #2 and are assumed to be present above TSCA hazardous waste limits on certain pieces of equipment in Building #1.

Hazardous Waste Loading Dock:
PCBs are also present in soils at levels above the regulatory standards in the area between the hazardous waste storage loading platform and the eastern exterior wall of Building #2, in the vicinity of monitoring well MW-10. The estimated area of impacted soil and asphalt is approximately 470 square feet. At the MW-10 (0-1') sample, Aroclor 1254 was reported at 10 ppm and Aroclor 1260 was reported at 0.9 ppm. The location of this boring is between the asphalt pavement that serves the hazardous waste loading platform and the eastern side of the building, and the immediate area is not paved. Additionally, at sample LD-1 0-1.5 feet, a concentration of 170 ppm PCB was reported, indicating some of the soil is considered hazardous.

Floor Drains:
The floor drain located beneath the conveyor belt in Building #2 contains sediment with a concentration of lead (610 mg/kg), which exceeds the Residential RSL but does not exceed the Industrial RSL. The floor drain located in the Printing Area's printing press room contained materials with a PCB concentration of 0.8 ppm, which exceeds the Region 9 Residential PRG. It is also anticipated that the floor drain in the ink mixing room, which was filled with sediment but not sampled, also contains PCBs at a similar level. In total, these floor drains are estimated to contain 0.02 cubic yards of sediment.

Shredder Pit:
The standing water in the shredder pit contains cadmium (0.006 mg/L) and lead (0.019 mg/L) concentrations above the Vermont Groundwater Enforcement Standards (VGES) levels.

Groundwater:
Beneath portions of Building #2, as shown in the attached Phase II, Trichloroethylene (TCE) contamination is present in soil, soil vapor and groundwater.

Dump Area:
Based on the findings from hand-excavated test pits, the main dump area is estimated to be a 22 by 24 foot oval (approximately 400 square feet, with the wider portion oriented east to west) centered on test pit T-1. The trash in the dump area appeared to be deeper in the center portion (approximately 3-feet below ground surface, below ground surface (bgs)) and shallower towards the edges (approximately 2-feet b.g.s.). The highest concentration of lead in any of the dump soil samples was 1,000 mg/kg

D. Subsurface exploration, soil and rock data are for the general information of the Contractors. The Contractors are obligated to examine the site, review boring logs, all available information and records of explorations, investigations and other pertinent data for the site, and then based upon their own interpretations and investigations decide the character of material to be encountered and excavated, the suitability of the materials to be used for backfilling and such other purposes, the groundwater conditions, difficulties or obstacles likely to be encountered, and other conditions affecting the work. The subsurface data is accurate only at the particular locations and times the subsurface explorations were made. No other warranty either expressed or implied by the Owner, Engineer or their agents is made as to the accuracy of the subsurface information and data shown on the Drawings or presented in the Contract Documents.

END OF SECTION

SECTION 02220

DEMOLITION

PART 1 GENERAL

1.01 DESCRIPTION:

A. This Section specifies the demolition work within the Limits of Work shown on the Contract Drawings. Demolition work, as shown on the Contract Drawings and described herein includes, but is not limited to, the removal, proper disposal, and/or reuse/recycling of the following: all aboveground structures, including Buildings #1, #2, and #3 of the Former Solo/Fonda Container Facility, Boiler Plant, and Shed; all internal and external building contents; ancillary items and structures; and debris/materials within the Limit of Work. The concrete floor slab and below grade areas (basements, crawl spaces, pits, sumps, trenches, etc.) of Buildings #1, #2, and #3 are to remain as specified herein.

Other work included in this section includes, but not limited to: establishment and maintenance of Restricted Zones within Building #1 and Building #2; Pre- and Post-abatement/demolition cleaning of the concrete floor slabs as shown on the Contract Drawings and specified herein; removal of soil/sediment from floor drains; and construction of cap over designated areas as shown on the Contract Drawings and specified herein.

The Contractor shall verify the construction and condition of each building by site inspection, as well as the information presented in these Contract Documents, and shall provide all resources to perform the demolition work

B. Asbestos-containing materials and miscellaneous oil and hazardous materials have been detected in the buildings and shall be handled and disposed per Specification Section 02051 – Asbestos Abatement and Specification Section 02075 – Universal and Hazardous Waste, respectively, except for equipment and piping identified as “TSCA Waste” that will be handled and disposed of as specified in this section.

1.02 RELATED SECTIONS:

Due to the nature of the work described in this Section, the Contractor shall examine the Contract Documents thoroughly for requirements that affect work of this Section. Other Specification Sections that directly relate to the work of this Section include, but are not limited to, those listed below:

A. Section 00890 – Permits
B. Section 01014 – Scope and Sequence of Work
C. Section 01020 – Subsurface and Environmental Data
D. Section 01380 - Health & Safety Plan

E. Section 01562 – Dust Control
F. Section 01570 – Environmental Protection
G. Section 02051 – Asbestos Abatement
H. Section 02075 - Universal and Hazardous Waste
I. Section 02222 - Utility Abandonment
J. Section 02240 – Dewatering
K. Section 02300 - Earthwork
L. Section 02745 - Paving
M. Section 02300 - Earthwork
N. Section 02820 - Chain Link Fencing
O. Section 13282 - Lead-Based Coatings Removal

1.03 DEFINITIONS:

A. Demolish – To tear down, segregate waste streams, and lawfully recycle or dispose of all debris generated in the process including structure contents.

1.04 SUBMITTALS:

A. Quality Control Submittals (prior to commencement of demolition):

1. Project Schedule in accordance with Section 01014 – Scope and Sequence of Work and Section 01310 - Construction Scheduling.

2. Demolition and Waste Management Plan as specified in Paragraph 1.04.E of this Section.

3. Copies of any authorizations and permits required to perform the work, including disposal/recycling facility permits.

B. Contract Closeout Submittals (throughout project and prior to authorization of final payment):

1. Records of the amounts of waste generated, by waste type, shall be submitted and up to date with each request for payment. Requests for payment will be returned, in the event that this requirement is not met.

2. Evidence of lawful disposal or recycling of all wastes generated (including weight slips from the disposal/recycling facilities), shall be submitted and up to date with each request for payment. Requests for payment will be returned, in the event that this requirement is not met.

3. Documentation of utility abandonment as identified in Part 3 of this Section, Section 01770 – Project Closeout, and Section 02222 – Utility Abandonment.

4. Complete Material Tracking Log as specified in Paragraph 3.12 of this Section.

5. Daily Logs, Weekly Reports, and Phase-Out Report as specified in Paragraph 3.14 of this Section.

C. Permits and Certificates: Submit permits and certificates to the Engineer prior to start of demolition work; coordinate with the requirements of Section 00890 – Permits. Submit certificates of severance of utility services.

D. Lead Compliance Plan: Prior to the start of demolition work, and no later than 30 calendar days after the date of the Notice to Proceed, submit a site-specific Lead Compliance Plan in accordance with OSHA Lead in Construction Standard 1926.62 that identifies all lead hazards and proper work procedures for the work of this Section. Coordinate Lead Compliance Plan with the requirements of Section 13282 – Lead-Based Coatings Removal.

E. Demolition and Waste Management Plan: Prior to the start of demolition work, and no later than 30 calendar days after the date of the Notice to Proceed, submit a comprehensive Demolition and Waste Management Plan, stamped and signed by a Vermont Professional Engineer, for the Engineer's review and approval prior to demolition work. The Demolition and Waste Management Plan shall be coordinated with, and as appropriate include reference to, the various plans and submittals required by these Specifications. At a minimum the Contractor's Demolition and Waste Management Plan shall specifically include and address the following:

1. A schedule that details the sequence of demolition both for the sequence of work within a building and for the overall sequence for the buildings being demolished under this Contract.

2. Methods and equipment proposed to demolish structures, manage and segregate brick and concrete, and clean, if required, materials designated for recycling (see Paragraph 1.04.E.6 for additional requirements). No torch cutting, mechanical sanding, stripping, or abrasive methods of paint removal shall be allowed per Section 13282 - Lead-Based Coatings Removal. Include information such as catchment system protection details and procedures, equipment types and placement, name and address of all demolition debris transporters, and protection controls, including protection to traffic, pedestrians, and abutting parcels. In addition, include specific methods and equipment to demolish roof hoppers, including coordinating work with required abatement activities (see Section 02051 – Asbestos Abatement).

3. A site plan indicating Contractor's intended plan and identifying location for various aspects such as temporary demolition staging and stockpiling areas, debris storage areas, dumpster/container locations, truck loading areas,

equipment and material storage, temporary sanitary facilities, employee parking and similar information. In general, a minimum of five (5) waste stream stockpile/storage areas will be generated on-Site as described in Part 3 of this Section, and as described below:

ABC Stockpile Area: Asphalt, brick and concrete **without** coatings, contamination, and/or evidence of contamination (staining, petroleum and/or chemical odor, and/or significant change of color as determined by Engineer). The Contractor shall recycle asphalt, brick and concrete from the ABC Stockpile Area per Part 3 of this Section at an applicable recycling facility.

Coated Brick and Concrete Stockpile Area: Brick and concrete **with** coatings (e.g. paint). The Contractor shall recycle or dispose brick and concrete from the Coated Brick and Concrete Stockpile Area per Part 3 of this Section at an applicable recycling or disposal facility.

Miscellaneous C&D: Miscellaneous construction and demolition (C&D) debris other than Contaminated Building Materials, TSCA waste and brick and concrete including, but not limited to: building contents, wood, plastic, electrical, metal, roofing materials, and other miscellaneous demolition debris from the Site. This area will be subdivided based on the C&D material. The Contractor shall recycle C&D material as much as possible per Part 3 of this Section at an applicable recycling facility and dispose what cannot be recycled at an applicable disposal facility.

Contaminated Building Materials Stockpile Area: Contaminated building materials designated for disposal at a lined landfill from Buildings #1 and #2 as shown on the Contract Drawings and specified herein. The building materials, including perimeter walls and internal vertical support columns in the Main Room of Building #1 and designated walls within Building #2, as shown on the Contract Drawings, are designated for disposal at an in-state or out-of-state lined landfill based on analytical data showing polychlorinated biphenyl (PCB) concentrations between 1 and 50 parts per million (PPM). The concrete shall be handled, managed, stockpiled, sampled, and disposed per Part 3 of this Section. See Section 01020 - Subsurface and Environmental Data and Appendix A and B, for additional information.

TSCA Contaminated Concrete and Other TSCA Waste Storage Area: Concrete and other materials (PCB contaminated equipment and piping, ink residue/waste from pre-abatement/demolition cleaning, dirt/residue from final cleaning within the capped area) identified in Part 3 that contain PCB concentrations above TSCA regulatory limits. The TSCA contaminated concrete and other TSCA waste shall be handled and managed as hazardous waste and stored, sampled, and disposed per Part 3 of this Section. At a minimum, the TSCA contaminated concrete and other TSCA waste shall be

stored in covered, lined containers per Part 3 of this Section. This material was identified during Site investigations with PCBs above regulatory standards or is suspected of having PCB concentrations above regulatory standards based on location and visual observations (ink staining, etc.). See Section 01020 - Subsurface and Environmental Data and Appendix A and B, for additional information.

4. The Contractor shall describe the proposed sequence, methods, and equipment to clean the concrete floor slab, as shown on the Contract Drawings, pre-abatement/demolition and post-demolition, including The Contractor shall provide details for methods to collect and dispose run-off, debris, and cleaning materials, as required. The dirt, dust, debris, residue collected shall be handled and managed as hazardous waste and considered "Other TSCA Waste" per Part 3 of this section.

5. Identify recycling facilities for recycling bituminous pavement designated for removal, as shown on the Contract Drawings and described within these specifications, and provide information as required in Paragraph 1.04.E.9 of this Section.

6. Address the following demolition related items, as applicable:

   a. Temporary structural supports as required during demolition, including but not limited to, scaffolding, bulk heads for buildings severed by the property line, and any other protective structures. Particular attention shall be given to fall hazards.

   b. Calculations for floor loading adequacy to support any equipment that the Contractor will have on any of the building floors during any phase of demolition.

   c. Competent person to supervise the erection and dismantling of scaffold on-Site.

   d. Procedures for assuring trained and experienced workers.

   e. Inspection program.

   f. Drawings of engineered fall arrest systems designed by a Vermont Professional Engineer.

   g. Utilization of completely decked working levels for the handling of materials.

   h. Identification of prohibited activities, e.g. prohibition of the use of cross bracing as a working surface, climbing device or as handrails, etc.

   i. Limitations of work during adverse weather conditions.

   j. Provisions that only scaffold grade planking or equivalent be used.

k. Methods of temporary protection for the poles, overhead wires, and pole-mounted transformers on or near the Site, when, and if, applicable. The Demolition and Waste Management Plan shall include a copy of the written approval from the electrical utility company and other affected overhead utility authorities, for the proposed protection of their overhead utility system. This protection system must clearly show that this utility service is adequately protected, and that worker and public safety is ensured in providing utility protection and performing the work of this Section.

l. Methods, equipment, and sequence of operations for the demolition of each building showing how the public and adjacent railroad tracks are protected during demolition.

m. Methods, equipment and materials being used for any support of excavation for the protection of utilities, adjacent structures, and adjacent railroad tracks.

n. Methods of demolition of a building that show how adjacent property, including the railroad tracks and Right-of-Way, is being protected.

7. The Contractor shall identify building contents and items within the Limits of Work to be:

a) Recycled off-Site (steel, clean concrete and brick, etc.) and
b) Disposed off-Site (C&D material that cannot be recycled, contaminated building materials and concrete, contaminated mechanical equipment and piping, etc.).

The Contractor shall describe the proposed sequence, methods, and equipment to clean material, if required, to be recycled off Site. The Contractor shall provide details for methods to collect and dispose run-off and cleaning materials, as required. Submit, as required, applicable permits, certificates, and/or sampling analyses demonstrating material to be recycled off Site meets recycling facility requirements.

8. Describe the types of demolition materials, including wood, metal, brick and concrete, to be generated and propose appropriate disposal or recycling facilities that will accept the demolition materials. The Contractor shall identify and make arrangements with all off-Site reuse, recycling, and disposal facilities to be used, including back-up disposal and recycling facilities. Disposal/recycling facilities listed in the EPA Superfund Program will not be accepted as disposal/recycling facilities for this Work. The Contractor shall not remove any demolition materials from the Site unless approved by the Engineer and until the Demolition and Waste Management Plan has been approved. The Contractor shall not remove any material to any off-Site facility not listed in the approved Demolition and Waste Management Plan. If, following approval of the Demolition and Waste

Management Plan, the Contractor desires or identifies a need to use any facility not included in the Plan, he must submit the information as required by this Paragraph, and receive approval for same, prior to such use.

For each disposal and recycling facility, the Contractor shall submit the following information:

a. General Information

   i. Facility Name
   ii. Facility Address
   iii. Name of Contact Person
   iv. Title of Contact Person
   v. Telephone Number of Contact Person
   vi. Permit Number

b. The disposal or recycling facility shall provide a listing of all applicable permits, licenses, letters of approval, and other authorizations to operate that they hold, pertaining to the receipt and management of the demolition materials to be taken to that facility.

c. The disposal or recycling facility shall provide written confirmation that they are permitted to accept and will accept the demolition materials of the general quality and quantity described by these Specifications.

d. Confirmation from the disposal or recycling facility that they will accept the type and quantities of demolition materials. The Contractor shall submit a complete list of the disposal or recycling facility's permitted allowable contaminant levels, if applicable, and physical characteristic requirements for demolition materials, and list any required regulatory approvals for individual waste streams.

e. Description of Contractor's procedures to manage and track demolition materials and example of Contractor's material tracking log. The Contractor shall submit weight slips from recycling/disposal facilities for all waste streams to the Engineer.

f. The disposal or recycling facility shall specify the volume of demolition materials that can be accepted from the Site on a weekly and a total basis.

9. All pertinent information relating to the transport of demolition material. The information, at a minimum, shall include:

   a. Name and address of all transporters.

b. Transporter identification number (USEPA or Vermont Agency of Transportation) and expiration date.

c. Proof of permit, license, or authorization to transport excavated material, when applicable, in all affected states.

d. Dust control measures.

F. Laboratory results for all samples collected and/or analyzed by the Contractor shall be submitted to the Engineer within 2 days of receipt in tabulated spreadsheet form summarizing detections and exceedences of applicable criteria along with the raw laboratory data package. The results shall include all Chain-of-Custody forms and all documentation provided by the laboratory. Analytical data shall be kept confidential, distributed only to the Engineer.

G. Disposal and Recycling Receipts: Prior to submission of a periodic invoice for payment for Work including materials disposal, and within 21 days of transportation from the Site, the Contractor shall document actual disposal and/or recycling of the demolition materials at the designated disposal/recycling facility by completing an associated disposal/recycling certificate and submitting the original to the Engineer together with all associated disposal/recycling receipts from the disposal or recycling facility. Such certificates and receipts shall bear the printed name of the facility operator and shall specify the date of delivery; the quantity and type of material delivered, and shall be signed by an on-site representative of the facility operator. Payment may be withheld at the discretion of the Engineer for the disposal/recycling of demolition materials for which there are no signed disposal/recycling receipts.

1.05 REGULATORY REQUIRMENTS:

A. Contractor is solely responsible for obtaining permits or approvals which may be required to perform the work of this Section, including all costs, fees and taxes required or levied.

B. Notify and obtain such permits or approvals from all agencies having jurisdiction over demolition prior to starting work including, but not limited to Health, Building, and Fire Departments of the municipality and local, State and Federal agencies.

C. Comply with all applicable Federal, State, and local environmental, safety and health requirements regarding the demolition of structures and other Site features and recycling or disposal of demolition materials, including building contents, as applicable.

D. Conform to applicable codes and requirements for demolition of structures, safety of adjacent structures, dust control, service utilities, and discovered hazards.

E. Conform to procedures identified in Section 01380 – Health and Safety Plan.

F. Dispose or recycle all demolition debris in accordance with all applicable regulations.

G. Contractor performing this work shall be thoroughly knowledgeable of all Federal, State and local laws, rules, and regulations regarding materials containing or coated with lead or lead products. Collection, treatment, and disposal of all lead-containing wastes shall be in strict accordance with current applicable Federal, State, and local laws, rules, and codes, including, but not limited to, Resource Conservation and Recovery Act (RCRA), Toxic Substances Control Act (TSCA), Occupational Safety and Health Act (OSHA), and USEPA. Refer to Section 13282 – Lead-Based Coatings Removal for additional requirements.

1.06 PROJECT CONDITIONS:

A. Occupancy: All buildings to be demolished will be unoccupied prior to start of work.

B. Condition of Structures: The Owner assumes no responsibility nor makes any claim as to the actual condition, or the structural adequacy of any existing construction to be demolished. The Contractor shall investigate and assure himself of the condition of the work to be demolished and shall take all precautions to ensure safety of persons and property. See Section 01014 – Scope and Sequence of Work and the Contract Drawings for additional information.

C. Site inspections were conducted to note the contents of buildings. Asbestos containing materials found in the buildings are summarized in Section 02051 – Asbestos Abatement and other hazardous materials and white goods are summarized in Section 02075 - Universal and Hazardous Waste. For additional Site information refer to Appendix C – Site Photos, Section 01014 – Scope and Sequence of Work, Section 01020 - Subsurface and Environmental Data, and the Contract Drawings.

The summary and inventory tables in these Specifications are provided for the Contractor’s convenience and are not intended to provide complete information. The Contractor shall not base any claims on the adequacy or accuracy of the information presented in the summary and inventory tables.

D. Items of value that are not indicated to be returned to the Owner shall become the property of the Contractor. Storage or sale of items on the Project Site is prohibited.

E. Explosives: Not permitted.

F. Protection: Ensure the safe passage of persons in and around the buildings during demolition. Prevent injury to persons and damage to property. Provide adequate shoring and bracing to prevent collapse. Immediately repair damaged property to the condition before being damaged.

G. Refer to Section 01014 – Scope and Sequence of Work, Section 01020 - Subsurface and Environmental Data, and the Contract Drawings for a general description of the buildings to be demolished.

1.07 PROTECTION AND CONTROLS:

A. The Contractor shall perform his operations in such a manner, including any necessary support of excavation and dewatering as specified in the Contract Documents, as to prevent movement or settlement of adjacent structures, or movement, settlement, or collapse of adjacent services (i.e. railroad tracks, etc.) and sidewalks. Cease operations and notify the Engineer immediately if safety of adjacent structures or services appear to be endangered. Do not resume operations until safety is restored. Contractor shall be solely responsible and liable for any such movement, settlement, damage, or injury due to his operations. Promptly repair damage at no cost to the Owner. Coordinate with the requirements of Section 01110 – Control of Work and Materials.

B. The Contractor shall support the excavations to prevent undermining of the remaining concrete floor slabs.

C. Fall protection shall be provided whenever the work is at heights greater than six feet, and or where holes and openings exceed six feet in depth. Contractor shall provide barriers at floor openings and demolished stairways and vertical shafts, and maintain same at all times that a potential fall hazard to workers may exist. The design and use of personal fall arrest and restraint systems, and training of personnel shall comply with ANSI standards. Safety harnesses shall be required for all fall arrest systems. Safe access shall be maintained at all times by the use of scaffold ladders, stair towers, or other acceptable means. Platform planks shall be used in lieu of the commonly used single plank during erection and dismantling.

D. Comply with governing regulations pertaining to environmental protection. Coordinate with the requirements of Section 01570 – Environmental Protection.

E. Conduct demolition operations to prevent migration of dust, dirt, debris, and odors/vapors to adjacent structures and improvements. Use water sprinkling, temporary enclosures, and other suitable methods to limit dust and dirt rising and scattering into the air. All trucks must be covered when transporting debris from the Site. All vehicles leaving the Site must be cleaned to avoid distribution of dust and dirt to the surrounding areas. Coordinate with the requirements of Section 01562 – Dust Control and Section 01570 – Environmental Protection.

F. The Contractor shall use extra care to minimize water flowing across Restricted Zone areas of the buildings, as shown on the Contract Drawings, due to the contaminated concrete floor slabs. The Contractor shall limit exposure to the contaminated concrete floor slab in the Restricted Zones by covering the floor slab with 2 layers of 10-mil (minimum) NRPE and securing the edges of the NRPE to concrete slab with adhesive per Part 3 of this section.

G. The Contractor shall make special provisions to prevent excessive noise during demolition. Temporary noise barriers shall be erected by the Contractor at the direction of the Engineer if the noise level at the perimeter of the Site is determined as excessive. Refer to Section 01570 – Environmental Protection for noise control requirements.

H. Upon completion of structural demolition and soil excavation as described in Section 02282- Handling, Transportation, and Off-Site Disposal of Excavated Material and the Contract Drawings, all areas within the Limit of Work shall be backfilled and graded, with the exception of the basement area in Building #1, basement area in Building #2, and the Shredder Pit in Building #3, as shown on the Contract Drawings, which will be either filled with Class B backfill if Alternate A is selected or fenced with a permanent 8-foot chain link fence with mesh fabric if Alternate B is selected. All backfilling and grading shall be in accordance with the requirements of this Section, Section 02282 – Handling, Transportation, and Off-Site Disposal of Excavated Material, Section 02300 – Earthwork, and the Contract Drawings.

1.08 QUALITY CONTROL

A. The responsibilities of the Contractor shall include, but not be limited to, the items identified below. The Contractor shall engage the services of an Environmental Consultant, if required, prior to and during the course of the Work.

1. Evaluation of existing analytical data and performance of any additional sampling, at no additional cost to the Owner, required for the removal of contaminated materials to meet all State and Federal regulations and disposal requirements.

2. Preparation of draft material shipping records and Hazardous Waste Manifests for transportation and disposal/recycling of demolition materials shall be submitted to the Engineer for review and comment. The Contractor shall be responsible for submitting completed Hazardous Waste Manifests, material shipping records, and other shipping documents to the Engineer within two weeks of shipment to a disposal/recycling facility.

3. Submit the executed transportation and disposal/recycle documents to the appropriate Federal, State and local agencies with copies of all documents submitted to the Engineer in the required time frame for submittal.

4. Preparation of necessary documents to support response actions for oil and/or hazardous material releases resulting from Contractor activities. These documents shall be submitted to the Engineer for review prior to submittal to any regulatory agency.

5. Ensuring compliance with all regulatory requirements listed in Paragraph 1.05 of this Section.

6. Ensuring that the work is performed in compliance with all local, State and Federal regulatory agencies governing the handling of contaminated and hazardous materials.

7. Ensuring that Best Management Practices are employed while performing the work described in this Section.

8. Advise the Engineer at least three working days in advance of the schedule for off-Site disposal/recycling.

9. Collect, analyze and characterize samples of stockpiled demolition material, as required, prior to off-Site disposal as specified in Part 3 of this Section.

10. Keep records, including daily logs and photographs, of all waste streams, weights, stockpiles, including crushed brick and concrete, for the purposes of tracking points of origin.

11. Develop and implement dust control measures, which will adequately protect workers and residents in the nearby community, and prevent off-Site migration of dust and vapors. Refer to Section 01562 - Dust Control.

12. Evaluation of existing analytical data and performance of any additional sampling, at no additional cost to the Owner, required for the removal of demolition materials to meet all State and Federal regulations and disposal/recycling requirements.

13. The work shall conform to Federal, State and local regulatory agencies governing the handling of contaminated and hazardous materials.

PART 2 - PRODUCTS

2.01 FILL AND CAP MATERIAL

A. Refer to Section 02300 - Earthworks for backfill material and processed gravel requirements for the cap area.

2.02 POLYETHYLENE SHEETING:

A. 10-mil (minimum) nylon-reinforced polyethylene (NRPE) or 20-mil (minimum) polyethylene sheeting shall be used for all stockpile sheeting.

B. NRPE sheeting shall conform to the following specifications:

1. The membrane shall be manufactured of new, first quality product designed and manufactured specifically for the intended use.

2. The material shall be 10-mil polyethylene reinforced with a non-woven grid of high strength nylon cord.

3. The material shall be ultra-violet resistant and cold crack resistant to -40 degrees Fahrenheit.

4. The materials shall be manufactured in a minimum 12-foot seamless width. Labels on the roll shall identify the thickness, length, width and manufacturer's mark number.

PART 3 - EXECUTION

3.01 GENERAL:

A. Demolition work, as shown on the Contract Drawings and described herein includes, but is not limited to:

1. Demolition and removal of the existing buildings of the Former Solo/Fonda Container Facility, Boiler Plant, and Shed at 15-21 Lower Newton Street in the City of St. Albans, Vermont. The former Fonda Group Facility includes Buildings #1, #2, and #3. Refer to Specification Section 01014 – Scope and Sequence of Work for a detailed description of the buildings. Demolition and removal shall include all structural components (with the exception of Building #1, #2, and #3 first floor concrete floor slab and below grade concrete floor slabs/walls of basements, pits, sumps, crawl spaces, and trenches) including wooden floors above basement areas, internal walls of below grade basements, building contents and all appurtenant structures as designated on the Contract Drawings and described in these Specifications. With the exception of the concrete to remain as described above, the remaining brick and concrete from buildings shall be recycled or disposed off-Site at an appropriate recycling/disposal facility as specified herein. Refer to Specification Section 01020 – Subsurface and Environmental Data and the Contract Drawings for details of the contaminated concrete within Buildings #1, #2, and #3;

2. All building contents and internal and external building components (e.g. roof hoppers) shall be removed, cleaned (if applicable), and transported to appropriate disposal or recycling facilities. The building contents include, but are not limited to: any furnishings; fixtures; equipment; mechanical aspects (e.g., conveyor belt system, HVAC system, etc.); any and all structural and non-structural improvements and aspects; all containers and pipes; and any miscellaneous debris/materials within Buildings #1, #2, and #3, Boiler Plant, and Shed, including all building components below the concrete floor slab grade in Buildings #1, #2, and #3 (i.e. building components and debris/materials in basement levels, sumps, pits, trenches, etc.). Refer to Paragraph 3.06 of this Section and the Contract Drawings for building materials classified as Contaminated Building Materials that will be disposed at a lined landfill and equipment and piping classified as TSCA Waste that will be handled and disposed of as hazardous waste. In accordance with the EPA's Principles for Greener Cleanups, the Contractor is encouraged to clean and salvage/reuse/recycle building contents, such as steel structural components.

3. Demolition and removal of all ancillary items and structures within the Limit of Work, including piles of debris, solid waste materials, building entrance structures, existing fences, guard rails, overhead piping and components, signs, stairs, ramps, and concrete transformer pads as indicated on the Contract Drawings, but may not be specifically shown, and described in these Specifications. The loading dock platforms, as shown on the Contract Drawings, and associated ramps/stairs to be demolished, removed, disposed, and/or recycled as part of Alternate C in Section 01270 – Measurement and Payment, if selected. The Building #1 basement walls, floor, and associated stairs, as shown on the Contract Drawings, to be demolished, removed, disposed, and/or recycled as part of Alternate D in Section 01270 – Measurement and Payment, if selected;

4. Parking lots, driveways, sidewalks, and curbing to be left in place with the exception of parking lots, roadways, and driveways for soil excavation activities and utility abandonment as shown on the Contract Drawings and described in these Specifications. Only bituminous pavement over the limits of excavation for contaminated soil and utility abandonment shall be removed as shown on the Contract Drawings and specified in Section 02222 – Utility Abandonment and Section 02282 – Handling, Transportation and Off-Site Disposal of Excavated Materials. Pavement shall be recycled off-Site and the Contractor shall repave excavation areas in Lower Newton Street and Central Vermont Railway Right-of-Way (R.O.W) per St. Albans PWD and Vermont Agency of Transportation standards and Section 02745 – Paving. For excavations in parking areas and adjacent to the building, the Contractor shall provide and place backfill per Section 02300 – Earthwork to bring the removed paved areas to match existing grades;

5. Lawful disposal of, or recycle of, all demolition debris including, but not limited to: rubble, masonry, wood, plastic, concrete, electrical, metal, pavement, roofing materials, and other miscellaneous demolition debris from the Site;

6. Demolition and removal all miscellaneous trash, solid waste, and debris within the Limits of Work;

7. Pre- and post-abatement/demolition cleaning of the concrete floor slab as shown on the Contract Drawings and described herein;

8. Establishment and maintenance of "Restricted Zones" in areas shown on the Contract Drawings to have elevated PCB concentrations on the floor slabs. The Restricted Zones shall be clearly marked and access will be limited as described herein; and

9. Cover areas to be capped with 2 layers of NRPE sheeting, secure edges of NRPE sheeting, install haybales, and place 2-inches of processed gravel as shown on the Contract Drawings and specified herein. Chain link fencing with mesh fabric and PCB caution signs shall be installed as shown on the Contract Drawings and Section 02820 – Chain Link Fence.

B. Verify Site conditions before proceeding with demolition work. Field check the accuracy of the Contract Drawings and inspect structures and utilities prior to start of work and notify the Engineer in writing, of any hazardous conditions and/or discrepancies. Primary structures and other site features are shown on the Contract Drawings and in the attached photographs (see Appendix C – Site Photos); other smaller structures, including, but not limited to, concrete pads, miscellaneous signs, lamp posts, flag poles, utility poles, and fencing may not be shown on the Drawings, but may exist within the Limit of Work and shall be demolished as part of the work of this Section.

1. Unknown Site Conditions - The information provided on the Contract Drawings and in the Specifications is believed to be accurate, but Contractor should field verify all information. Contractor shall bear full responsibility for obtaining all locations of underground structures, utilities and their connections.

2. Interior Elements - Interior features are described in the Specifications and are shown on the Contract Drawings and in the attached appendices (see Appendix A – Phase II Environmental Site Assessment, October 2008, Appendix B – Corrective Action Plan, August 2, 2010, and Appendix C – Site Photos 2008). Interior features include, but are not limited to: structural elements, walls, partitions, containers, concrete pads, equipment, piping, furniture, shelving, ladders, platforms, other building facilities, and/or miscellaneous debris piles may not be shown on Contract Drawings or in the attached photographs or described in the Specifications. All interior

features should be visually inspected prior to submittal of bid during the mandatory Site tour, and again prior to initiation of on-Site work. Contractor shall be responsible for performing its own inspection and appraisal of all features and facilities to be demolished or removed for salvage. Contractor shall also investigate to assure itself of the condition of the buildings to be demolished and shall take all precautions necessary to ensure safety of people and property.

C. The demolition of the buildings and related appurtenances shall be accomplished by methods that will not cause damage to, or undermine, surrounding structures, underground and overhead utilities, or other existing items and structures that are to remain in place. The Contractor shall support the excavations adjacent to buildings to prevent undermining of the remaining concrete floor slab.

D. All debris shall be promptly and properly managed as the demolition progresses. Prepare stockpile/storage areas as specified herein at locations approved by Engineer.

E. Demolition shall be by mechanical methods unless otherwise approved. No blasting or hot work (torch cutting, etc.) shall be permitted.

3.02 SITE PREPARATION:

A. All overhead hazards, which are imminent dangers, shall be removed and/or stabilized prior to work commencing near any building. Where hazards are not readily accessible, Contractor shall mark and control areas below hazards to prohibit access below the hazards. This shall be performed with caution tape, saw horses, safety fence or other types of barricades as determined by applicable safety codes. Similarly, all holes through the floors or weak sections of the floor and/or roof shall either be covered or clearly marked to prohibit entry. Floor coverings shall be capable of supporting heavy equipment use.

B. Terminate, discontinue, and cut/cap utilities serving the individual buildings prior to demolition, as specified on the Contract Drawings and Section 02222 – Utility Abandonment. Coordinate demolition activities with other on-Site work as specified in Section 01014 – Scope and Sequence of Work and the Contract Drawings. Remove soil/sediment from all floor drains and manage per Section 02282 – Handling, Transportation, and Off-Site Disposal of Excavated Material.

C. Prior to demolition, remove asbestos containing materials and other hazardous materials prior to structure demolition, in accordance with Section 02051 – Asbestos Abatement and Section 02075 - Universal and Hazardous Waste.

D. Remove building contents prior to structural demolition.

3.03 PRE-ABATEMENT/DEMOLITION CLEANING:

A. Prior to abatement and demolition activities, the Contractor shall perform an initial floor cleaning to the extents shown on the Contract Drawings and specified herein.

B. The Contractor shall scrape loose, flaking, peeling ink residue with metal edged tool (e.g. steel ice scraper/chopper, heavy duty metal shovel, etc.) and clean the designated areas shown on the Contract Drawings until free of dust, dirt, debris, or residue using wet cleaning methods and/or hepa vacuum technologies.

C. The Contractor shall contain all waste generated during the pre-abatement/demolition cleaning and handle, manage, and dispose as TSCA Waste per Paragraph 3.06.B.5 of this Section. Water collected during cleaning shall be handled and disposed per Section 02240 – Dewatering.

D. The Contractor shall decontaminate equipment and hepa vacuums, as applicable used to clean/wash concrete floors and appropriately dispose of cleaning materials.

E. Cleaning shall be done in a manner to prevent cross-contamination with other areas. The Contractor shall remove and dispose cross-contaminated materials at no additional cost to the Owner.

3.04 RESTICTED ZONES:

A. Immediately following the cleaning the designated areas of the concrete floor slab per Paragraph 3.03 of this Section, the Contractor shall establish and maintain Restricted Zones as shown on the Contract Drawings and specified herein.

B. The Contractor shall Place 2 layers of 10-mil nylon-reinforced polyethylene (NRPE) sheeting over the Restricted Zone areas of the floor slab and secure edges of NRPE sheeting to the concrete floor with adhesive. The Contractor shall maintain NRPE sheeting during the course of the work and replace torn/damaged sheeting, as required. The Contractor shall mark the Restricted Zones with non-toxic spray paint, place safety cones and caution tape around the areas and limit access to foot traffic and rubber wheeled equipment during demolition activities, as required. Workers and equipment shall remain on the NRPE sheeting within the Restricted Zone and shall remove demolition debris from the sheeting immediately.

C. The Contractor shall use extra care to minimize water flowing across Restricted Zone areas of the buildings and provide the necessary means to retain all water runoff generated by dust control and dispose of such water as specified in Section 02240 – Dewatering.

3.05 HAZARDOUS MATERIALS:

The Contractor shall remove all asbestos-containing materials, white goods, and other hazardous materials from buildings prior to any physical building demolition. Refer to Section 02051 – Asbestos Abatement, Section 02075 - Universal and Hazardous Waste, and Section 13282 - Lead-Based Coatings Removal for the specific scope of work related to asbestos abatement, universal and hazardous waste, and work requiring lead-based coatings removal. Concrete, equipment, piping, and waste classified as TSCA waste shall be handled and disposed of as hazardous waste per Paragraph 3.06 of this Section.

A. Lead Paint

1. A number of State, Federal and local agencies regulate work which involves lead paint. The Contractor is hereby notified that there are paint coatings on the structures to be demolished that contain lead. This lead could present a hazard to workers and requires regulatory compliance with 29 CFR 1926.62 "Lead in Construction."

2. Of specific concern is the cutting of steel components using torch methods. Per Section 13282 - Lead-Based Coatings Removal, no torch cutting, mechanical sanding, stripping, or abrasive methods of paint removal shall occur. Other means of controlling worker exposure to lead will be acceptable provided that they are addressed in the Lead Exposure Control Plan and that they meet the requirements of 29 CFR 1926.62. See Section 13282 – Lead-Based Coatings Removal for additional information

3. Where activities may generate leaded dust or impact a leaded surface, regulate work area so that dust migration is contained properly within the regulated area. Once the work is complete, properly clean up and dispose of leaded dust and materials. See Section 13282 – Lead-Based Coatings Removal for additional information.

B. Oil and Hazardous Material Contamination

1. Universal and hazardous waste material shall be removed, transported and disposed/recycled as specified in Section 02075 – Universal and Hazardous Waste. For results of the comprehensive site survey for PCB- and DEHP-containing light ballasts, fluorescent light/mercury containing vapor lamp bulbs, white goods, and other suspect hazardous materials see Section 02075 - Universal and Hazardous Waste.

C. Asbestos-Containing Materials

1. The Project involves the full containment and removal of all asbestos-containing materials (ACM) within the buildings as specified in Section 02051 – Asbestos Abatement. For results of the comprehensive site survey for asbestos containing materials see Section 02051 – Asbestos Abatement.

D. Soil, Groundwater, Concrete, and Building Materials Contamination

1. The Contractor is advised that remedial actions are necessary at the Site due to the presence of PCBs, semi-volatile organic compounds (SVOCs), metals, and chlorinated volatile organic compounds (VOCs) in some soil above regulatory limits; chlorinated VOCs in some groundwater above regulatory limits; PCBs in some concrete at concentrations that exceed applicable TSCA regulatory limits; and metals above regulatory limits in surface water within the shredder pit in Building #3. See Section 01020 - Subsurface and Environmental Data for additional information. The Contractor shall excavate, handle, stockpile, sample, and reuse/recycle/dispose excavated material generated during the course of the Work as specified in Section 02282 - Handling, Transportation, Reuse, and Off-Site Disposal of Excavated Material. The Contractor shall dewater as specified in Section 02240 – Dewatering. The Contractor shall remove, handle, manage, and dispose of concrete with elevated contaminant concentrations and equipment, piping, and waste classified as TSCA waste as shown on Sheet C-3 of the Contract Drawings, and as specified herein. Designated building materials in Building #1 and #2 have PCB concentrations between 1 and 50 PPM and shall be disposed at a lined landfill as specified herein and on the Contract Drawings.

3.06 DEMOLITION:

A. General

1. The demolition material/debris generated by the demolition activities shall be sorted, and to the extent practical, shall be recycled. The Contractor shall recycle as much of the steel, brick, concrete, and rubble as possible at a facility that will recycle such material. General demolition material/debris that is not recycled shall be disposed of at an approved off-Site disposal facility as specified in Paragraph 1.04.E.7 of this Section and in accordance with all Federal, State and local regulations.

2. Good management practices shall be used by the Contractor so that no public nuisance is created.

3. The Contractor shall segregate various building materials to facilitate recycling of salvageable materials.

4. The Contractor shall barricade/secure work area as necessary to protect workers and general public from falling debris.

5. The Contractor shall not leave unstable structures unattended and shall plan the workday so that all structures are stable at the end of each work day.

6. The Contractor shall coordinate the location and use of temporary water service for demolition activities with the St. Albans Public Works Department (PWD) and shall provide required backflow preventor(s), at no additional cost to the Owner. See Section 01140 – Special Provisions.

B. Demolition Waste Streams

The Contractor shall manage waste streams from the demolition of the buildings and ancillary structures at the Site under five (5) general categories (not including ACM, OHM, and soil): 1) ABC; 2) Coated Brick and Concrete; 3) Miscellaneous C&D; 4) Contaminated Building Materials; and 5) TSCA Contaminated Concrete and Other TSCA Waste.

1. Asphalt, Brick and Concrete (ABC)

This waste stream includes asphalt, brick and concrete **without** coatings, contamination, and/or evidence of contamination (staining, petroleum and/or chemical odor, and/or significant change of color as determined by Engineer). The Contractor shall store asphalt, brick and concrete in the ABC Stockpile Area and recycle the material at an applicable recycling facility as specified herein.

a. The Contractor shall remove, handle, manage, stockpile, and recycle asphalt and uncoated brick and concrete (ABC) from the buildings, ancillary structures, and paved areas including, but not limited to all uncoated brick and concrete structures and items, whether they are shown on the Contract Drawings or not, such as the brick and concrete debris, walls, entrance structures, transformer pads, concrete stairs, floors and footings from the Boiler Plant and Shed, and structural supports, not including the concrete floor and below grade areas of Buildings #1, #2, and #3. The ABC material designated for recycling and shall be handled and managed as specified herein.

b. If the concrete/rubble contains rebar (metal reinforcing), all rebar shall be removed and recycled or disposed at an approved recycling/disposal facility at no additional cost to the Owner.

c. The Contractor shall stockpile the ABC in the ABC Stockpile Area per Paragraph 1.04.E and Paragraph 3.05 of this Section. The Contractor may stockpile ABC material separately within the ABC Stockpile Area based on recycling destinations (i.e. asphalt separately from brick and concrete). It is the Contractors responsibility to find a recycling facility to accept the ABC material. If the Contractor disposes of the ABC material at a disposal facility, per applicable regulations, it will be at no additional cost to the Owner. The Contractor shall recycle/dispose ABC at an approved off-Site recycling/disposal facility as specified in Paragraph 1.04.E.7 of

this Section and in accordance with all Federal, State and local regulations.

d. The Contractor shall be responsible for sampling and characterizing the stockpiled ABC for the purpose of fulfilling any recycling testing requirements, and obtaining approvals, from the recycling facility(ies), if required.

e. The Contractor shall transport the ABC by licensed haulers, via designated truck routes, using appropriate vehicles, containment, and documentation as specified in Paragraphs 1.04.E.8 and 3.12 of this Section and in accordance with all Federal, State and local regulations.

f. The Contractor shall recycle the ABC at an approved off-Site recycling facility as specified in Paragraph 1.04.E.7 of this Section and in accordance with all Federal, State and local regulations.

g. Under no circumstances shall ABC material be removed from the Site without the approval of the Engineer.

h. Parking lots, driveways, sidewalks, and curbing to be left in place with the exception of parking lots, roadways, and driveways for soil excavation activities and utility abandonment as shown on the Contract Drawings and described in these Specifications. Only bituminous pavement over the limits of excavation for contaminated soil and utility abandonment shall be removed as shown on the Contract Drawings and specified in Section 02222 – Utility Abandonment and Section 02282 – Handling, Transportation and Off-Site Disposal of Excavated Materials. Pavement shall be recycled off-Site and the Contractor shall repave excavation areas in Lower Newton Street and Central Vermont Railway Right-of-Way (R.O.W) per St. Albans PWD and Vermont Agency of Transportation standards and Section 02745 – Paving. For excavations in parking areas and adjacent to the building, the Contractor shall provide and place backfill per Section 02300 – Earthwork to bring the removed paved areas to match existing grades.

i. All locations where roadway, driveways and parking lots to be removed meet pavement that is to remain shall be surface cut in a straight line by a concrete saw or equivalent method, to the full depth of bituminous concrete pavement prior to removal. Cutting operations shall not be done by ripping equipment.

2. Coated Brick and Concrete

This waste stream includes brick and concrete **with** coatings (e.g. paint). The Contractor shall recycle or dispose brick and concrete from the Coated Brick and Concrete Stockpile Area per Part 3 of this Section at an applicable

recycling or disposal facility. The Contractor is encouraged to recycle and shall recycle as much of the coated brick and concrete as possible at an applicable recycling facility.

a. Contractor shall remove, handle, manage, stockpile, and recycle/dispose coated brick and concrete from the buildings and ancillary structures including, but not limited to all coated brick and concrete structures and items, whether they are shown on the Contract Drawings or not, such as the brick and concrete debris, walls, entrance structures, concrete pads, concrete stairs, floors and footings from the Boiler Plant and Shed, and structural supports, not including the concrete floor and below grade areas of Buildings #1, #2, and #3. The coated brick and concrete material designated for recycling/disposal and shall be handled and managed as specified herein.

b. If the concrete/rubble contains rebar (metal reinforcing), all rebar shall be removed and recycled or disposed at an approved recycling/disposal facility at no additional cost to the Owner.

c. The Contractor shall stockpile the coated brick and concrete in the Coated Brick and Concrete Stockpile Area per Paragraph 1.04.E and Paragraph 3.05 of this Section.

d. The Contractor shall be responsible for sampling and characterizing the stockpiled coated brick and concrete for the purpose of fulfilling any recycling/disposal testing requirements, and obtaining approvals, from the recycling/disposal facility(ies), if required.

e. The Contractor shall transport the coated brick and concrete by licensed haulers, via designated truck routes, using appropriate vehicles, containment, and documentation as specified in Paragraphs 1.04.E.8 and 3.12 of this Section and in accordance with all Federal, State and local regulations.

f. The Contractor shall recycle/dispose of the coated brick and concrete at an approved off-Site recycling/disposal facility as specified in Paragraph 1.04.E.7 of this Section and in accordance with all Federal, State and local regulations.

g. Under no circumstances shall coated brick and concrete material be removed from the Site without the approval of the Engineer.

3. Miscellaneous C&D

This waste stream includes miscellaneous construction and demolition (C&D) debris other than Contaminated Building Materials, TSCA waste, and brick and concrete including, but not limited to: building contents, wood, plastic, electrical, metal, roofing materials, and other miscellaneous demolition debris from the Site. Miscellaneous C&D shall be stockpiled in the Miscellaneous

C&D Stockpile Area and shall be subdivided based on the type of C&D material (wood, metal, etc.). The Contractor shall recycle C&D material as much as possible at applicable recycling facilities.

a. Contractor shall remove, handle, manage, stockpile, and recycle/dispose all building contents, debris and miscellaneous C&D materials within the Limit of Work, whether or not they are specifically shown on the Contract Drawings, shall be removed, cleaned (if applicable), and transported to appropriate disposal or recycling facility, including, but not limited to: any furnishings; fixtures; equipment; mechanical aspects (e.g., conveyor belt system, HVAC system, etc.); internal and external building components (e.g. roof hoppers); any and all structural and non-structural improvements and aspects; all containers and pipes; and any miscellaneous debris/materials within the Limits of Work, including debris within Buildings #1, #2, and #3, Boiler Plant, and Shed; and all building components and debris below the concrete floor slab grade in Buildings #1, #2, and #3 (i.e. building components and debris/materials in basement levels, sumps, pits, trenches, etc.). Refer to Paragraphs 3.06.B.4 and Paragraph 3.06.B.5 of this Section and the Contract Drawings for building material classified as Contaminated Building Materials that will be disposed of at a lined landfill and material classified as TSCA waste that will be handled and disposed of as hazardous waste. In accordance with the EPA's Principles for Greener Cleanups, the Contractor is encouraged to clean and salvage/reuse/recycle building contents, such as steel structural components and miscellaneous materials within the Limits of Work.

b. The Contractor shall transport the miscellaneous C&D by licensed haulers, via designated truck routes, using appropriate vehicles, containment, and documentation as specified in Paragraphs 1.04.E.8 and 3.12 of this Section and in accordance with all Federal, State and local regulations.

c. The Contractor shall recycle/dispose of the miscellaneous C&D at an approved off-Site recycling/disposal facility as specified in Paragraph 1.04.E.7 of this Section and in accordance with all Federal, State and local regulations.

d. Under no circumstances shall miscellaneous C&D material be removed from the Site without the approval of the Engineer.

e. The Contractor shall remove all asbestos, white goods, and other hazardous materials from buildings prior to demolition. Refer to Section 02051 – Asbestos Abatement, Section 02075 Universal and Hazardous Waste, Section 13282 Lead-Based Coatings Removal for the specific scope of work related to asbestos abatement, universal and hazardous waste, and work requiring lead-based coatings removal. Building materials classified as Contaminated Building Materials shall be handled and disposed of per Paragraph 3.06.B.4 of this Section. Concrete,

equipment, piping, and waste classified as TSCA waste shall be handled and disposed of as hazardous waste per Paragraph 3.06.B.5 of this Section.

f. The Contractor shall remove, handle, stockpile, sample, and dispose all sediment/sludge in pit, trench and sump bottoms per Section 02282 - Handling, Transportation, and Off-Site Disposal of Excavated Material.

4. Contaminated Building Materials

This waste stream includes contaminated building materials for disposal at an in-state or out-of-state lined landfill from Buildings #1 and #2 as shown on the Contract Drawings and specified herein. The building materials are designated for disposal at a lined landfill based on analytical data identifying PCB concentrations between 1 and 50 PPM. The building materials, including the perimeter walls and vertical structural support columns of the Main Room of Building #1 and designated concrete walls within Building #2, as shown on the Contract Drawings, shall be handled, managed, stockpiled, sampled, and disposed of as specified herein.

a. The Contractor shall remove, handle, manage, stockpile, and dispose of the contaminated building materials from Buildings #1 and #2 as shown on the Contract Drawings and specified herein. These building materials were identified during Site investigations with the following characteristics: PCB concentrations between 1 and 50 PPM. See Section 01020 - Subsurface and Environmental Data and Appendix A and B, for additional information.

b. The Contractor may break contaminated concrete and/or building materials into pieces for ease of handling with a hoe ram/hydraulic hammer/demolition hammer, but must decontaminate equipment per the Demolition and Waste Management Plan and Section 01570 – Environmental Protection. Contaminated building materials shall be removed in a manner to prevent cross-contamination with other materials. The Contractor shall remove and dispose cross-contaminated materials at no additional cost to the Owner.

c. The Contractor shall stockpile contaminated building materials in the Contaminated Building Materials Stockpile Area and shall place the contaminated building materials entirely on 10-mil (minimum) nylon-reinforced polyethylene (NRPE) or 20-mil (minimum) polyethylene sheeting and shall be covered at the end of each day’s work with the same material. See Paragraph 1.04.E and Paragraph 3.05 of this Section for additional details.

d. If the concrete/rubble contains rebar (metal reinforcing), all rebar shall be removed and recycled or disposed at an approved recycling/disposal facility at no additional cost to the Owner.

e. The Contractor shall be responsible for sampling and characterizing the stockpiled building materials in the Contaminated Building Materials Stockpile Area for the purpose of fulfilling any disposal testing requirements, and obtaining approvals, from the lined landfill disposal facility(ies). See additional sampling requirements in Paragraph 3.10 of this Section.

f. The Contractor shall transport the building materials from the Contaminated Building Materials Stockpile(s) by licensed haulers, via designated truck routes, using appropriate vehicles, containment, and documentation as specified in Paragraphs 1.04.E.8 and 3.12 of this Section and in accordance with all Federal, State and local regulations.

g. The Contractor shall dispose of the building materials from the Contaminated Building Materials Stockpile Area at an approved off-Site disposal facility (in-state or out-of-state lined landfill) as specified in Paragraph 1.04.E.7 of this Section and in accordance with all Federal, State and local regulations.

h. Under no circumstances shall contaminated building materials be removed from the Site without the approval of the Engineer.

5. TSCA Contaminated Concrete and Other TSCA Waste

This waste stream includes concrete and other materials (PCB contaminated equipment and piping, ink residue/waste from pre-abatement/demolition cleaning, dirt/residue from post-demolition cleaning within the capped area) identified on the Contract Drawings and specified herein as containing PCB concentrations above TSCA regulatory limits. The TSCA contaminated concrete and other TSCA waste shall be handled and managed as hazardous waste and stored, sampled, and disposed as specified herein.

a. TSCA contaminated concrete and TSCA Waste includes concrete identified on the Contract Drawings and other TSCA waste, including the following: ink residue/waste from pre-abatement/demolition cleaning, dirt/residue from post-demolition cleaning within the capped area, NRPE sheeting from the Restricted Zones, and PCB contaminated equipment and piping from Building #1 such as the drying rack, sink, vacuum intakes, including 6-feet of intake and exhaust piping, sump pump, and associated 2-inch piping as shown on the photographs in Appendix C and directed by the Engineer.

b. If additional stained/discolored equipment or piping is encountered, the Contractor shall immediately notify the Engineer. The “potential TSCA waste” shall be stockpiled separately on NRPE sheeting per Paragraph 3.07 of this Section at no additional cost to the Owner. The Engineer shall collect PCB samples from the suspect equipment or piping and provide sampling results to the Contractor within two weeks of sampling.

The Contractor shall dispose or recycle the equipment and/or piping based on the sampling results. If PCB concentrations are greater than 50 PPM, the material will be handled and disposed as TSCA Waste as described herein.

c. The Contractor shall remove, handle, manage, stockpile, and dispose of the TSCA contaminated concrete and other TSCA waste as hazardous waste. The TSCA contaminated concrete was identified during Site investigations with the following characteristics: PCB concentrations greater than 50 PPM. See Section 01020 - Subsurface and Environmental Data and Appendix A and B, for additional information.

d. The Contractor may break TSCA contaminated concrete into pieces for ease of handling with a hoe ram/hydraulic hammer/demolition hammer, but must decontaminate equipment per the Demolition and Waste Management Plan and Section 01570 – Environmental Protection. Contaminated concrete shall be removed in a manner to prevent cross-contamination with other materials. The Contractor shall remove and dispose cross-contaminated materials at no additional cost to the Owner.

e. All TSCA contaminated concrete and other TSCA waste shall be placed within lined containers. All TSCA contaminated concrete and other TSCA waste shall be directly loaded into containers lined with two (2) 10-mil pre-formed polyethylene liners. The Contractor shall cover the containers when they are not being loaded. Once containers are loaded, the liners will be individually sealed utilizing duct tape and spray glue and labeled with proper warning labels and generator labels. Storing and stockpiling TSCA contaminated concrete and other TSCA waste on polyethylene sheeting shall not be permitted unless approved by the Engineer.

f. The containers shall be constructed of steel, in good condition and designed for the intended purpose of safe, secure storage of contaminated and hazardous materials during loading and transport. The containers shall have a secure cover that will prevent a release of material from truck during transportation. The containers shall be approved by the Engineer prior to mobilization of trucks/containers. The containers must be approved by and labeled in accordance with the U.S Department of Transportation (DOT). The containers shall be sift proof and water resistant in accordance with the DOT.

g. Transfer TSCA contaminated concrete and other TSCA waste from the demolition areas to the containers/storage areas in a manner to prevent cross-contamination with other materials. Disposal of material that is contaminated as a result of careless handling or use of unauthorized procedures shall be disposed of off-Site at the Contractors expense.

h. If the concrete/rubble contains rebar (metal reinforcing), all rebar shall be removed and recycled or disposed at an approved recycling/disposal facility at no additional cost to the Owner.

i. The Contractor shall be responsible for sampling and characterizing the TSCA contaminated concrete and other TSCA waste for the purpose of fulfilling any disposal testing requirements, and obtaining approvals, from the disposal facility(ies). See additional sampling requirements in Paragraph 3.10 of this Section.

j. The Contractor shall transport the TSCA contaminated concrete and other TSCA waste by licensed haulers, via designated truck routes, using appropriate vehicles, containment, and documentation as specified in Paragraphs 1.04.E.8 and 3.12 of this Section and in accordance with all Federal, State and local regulations.

k. The Contractor shall dispose of the TSCA contaminated concrete and other TSCA waste at an approved off-Site disposal facility as specified in Paragraph 1.04.E.7 of this Section and in accordance with all Federal, State and local regulations.

l. Under no circumstances shall TSCA contaminated concrete and other TSCA waste be removed from the Site without the approval of the Engineer.

C. Concrete to Remain In-Place

The Contractor shall cut holes (4-inch minimum) through the remaining sub grade areas (basements, crawl spaces, pits, sumps, and trenches) in Buildings #1, #2, and #3, in a 10-foot grid each way. The basement exterior walls that are to be left in place shall be protected from damage unless Alternate D is selected and the basement walls, floor, and associated stairs in Building #1 are demolished per Paragraph 3.11 of this Section.

3.07 TEMPORARY STOCKPILING AND STORAGE:

A. The Contractor shall be allowed to stockpile, or store in containers, brick and concrete and demolition debris material on-Site if the conditions of this Section are met and after notifying the Engineer of potential stockpile/storage location(s) as required in the Demolition and Waste Management Plan and at least two (2) days prior to initial demolition. TSCA contaminated concrete and other TSCA waste shall be stored in containers as specified herein. The Owner shall have final approval over all stockpile/storage locations.

B. The stockpiling or consolidating of brick and concrete or demolition debris near sensitive human health receptors such as public and private water supply wells or sensitive environmental receptors such as wetlands, surface water bodies, or marine environments shall be prohibited.

C. Stockpiled/stored material must be removed and reused on-Site and/or disposed/recycled off-Site per this Section as soon as possible and in all cases within 90-days from the day of its initial demolition.

D. All stockpiles containing contaminated material shall be stored in a secure manner to prevent exposure to humans and the environment.

E. All building materials in the Contaminated Building Materials Stockpile Area and "potential TSCA waste," as described in Paragraph 3.06.B.5.b of this Section, shall be placed entirely on 10-mil (minimum) nylon-reinforced polyethylene (NRPE) or 20-mil (minimum) polyethylene sheeting and shall be covered at the end of each day's work with the same material as to minimize the infiltration of precipitation, and volatilization of contaminants of the stockpile. Any cover material used shall be properly secured and possess the necessary physical strength to resist tearing by the wind and other elements. Containers and covers may be used by the Contractor for storing and/or hauling building materials from the Contaminated Building Materials Stockpile Area or "potential TSCA waste" at no additional cost to the Owner. If sampling results from "potential TSCA waste" material identify the material as TSCA Waste (PCB concentrations greater than 50 PPM), the material shall be handled, managed, and stored in containers per Paragraph 3.06.B.5 of this Section. If the Contractor uses containers for building materials from the Contaminated Building Materials Stockpile Area, the containers shall be constructed of steel, in good condition and designed for the intended purpose of safe, secure storage of contaminated and hazardous materials during loading and transport. The containers shall have a secure cover that will prevent a release of material from truck during transportation. The containers shall be approved by the Engineer prior to mobilization of trucks/containers. The containers must be approved by and labeled in accordance with the U.S Department of Transportation (DOT). The containers shall be sift proof and water resistant in accordance with the DOT.

F. Any failure of materials or procedures used in employing the base polyethylene layer or cover polyethylene layer shall be immediately repaired, replaced or re-secured so as to minimize precipitation infiltration, volatilization, dust, and runoff of the stockpiled material.

G. The polyethylene sheeting of stockpiles shall be bermed around the edges to prevent any infiltration of stormwater or exfiltration of leachate. The Contractor shall be responsible for collecting and disposing leachate/runoff from the stockpiles at no additional cost to the Owner.

H. Movement of stockpiled material shall be limited to those activities that are necessary to manage such stockpiles.

I. Transfer brick and concrete and demolition debris from the demolition areas to the stockpile areas in a manner to prevent cross-contamination with other materials.

J. Disposal of material that is contaminated as a result of careless handling or use of unauthorized procedures shall be disposed of off-Site at the Contractors expense.

K. The stockpiles shall be clearly labeled and securely barricaded from contact by workers and the general public.

3.08 POST-DEMOLITION CLEANING:

A. After the demolition of Buildings #1, #2, and #3, the Contractor shall perform a floor cleaning over the areas to be capped as shown on the Contract Drawings and specified herein. The Contractor shall clean the remaining floor slab and below grade floors outside of the areas to be capped per Section 01740 – Cleaning Up.

B. The Contractor shall remove and dispose the NRPE sheeting in the Restricted Zones as TSCA Waste. The Contractor shall clean the floor slab in the areas to be capped, as shown on the Contract Drawings, until free of dust, dirt, debris, or residue using wet cleaning methods. A wet spray power vacuum street sweeper will be allowed to be used on the remaining floor slab.

C. The Contractor shall contain all waste generated during the post-demolition cleaning form the capped area and handle, manage, and dispose as TSCA Waste per Paragraph 3.06.B.5 of this Section. Water collected shall be handled and disposed per Section 02240 – Dewatering.

D. The Contractor shall decontaminate equipment, as applicable used to clean/wash concrete floors in the capped area and appropriately dispose of cleaning materials.

E. Cleaning within the area to be capped shall be done in a manner to prevent cross-contamination with other areas. The Contractor shall remove and dispose cross-contaminated materials at no additional cost to the Owner.

3.09 CAPPING CONTAMINATED FLOOR SLAB

A. Immediately following the post-demolition cleaning, the Contractor shall install the chain link fencing and cap the areas shown on the Contract Drawings. The Contractor shall place 2 layers of 10-mil NRPE sheeting over the floor slab to be capped and secure edges of NRPE sheeting to the concrete floor and fencing as shown on the Contract Drawings.

B. The Contractor shall carefully place haybales and 2-inches of processed gravel over the NRPE sheeting as shown on the Contract Drawings. If the sheeting is damaged during the installation of the haybales and gravel, the Contractor shall immediately replace the damaged sheeting to the satisfaction of the Engineer.

3.10 DISPOSAL CHARACTERIZATION SAMPLING:

A. All disposal characterization sampling and analysis performed by the Contractor shall be at no additional cost to the Owner.

B. The Contractor shall be responsible for sampling and characterizing the stockpiled/stored material from each waste stream described in Paragraph 3.06.B of this Section for the purpose of fulfilling any recycling or disposal testing requirements, and obtaining approvals, from the recycling or disposal facility(ies). The Contractor shall provide the Engineer with a minimum of 2-days notice prior to sampling and shall not sample unless Engineer's approval is received and the Engineer is present to witness the collection of the samples.

1. The Contractor shall perform all sampling and analysis of stockpiled/stored material as required by potential receiving facilities and this Section.

2. The Contractor shall collect additional samples to perform additional testing of the stockpiled/stored material as required by the recycling or disposal facility(ies) at no additional cost to the Owner.

C. The Contractor shall submit a copy of all sampling analyses and a tabulated summary of the data in Microsoft Excel format to the Engineer within two (2) days of receipt of the laboratory report.

D. Samples will be collected from each segregated stockpile, or containerized material, at a minimum frequency of one sample per 250-cubic yards of each stockpile/containerized material from each waste stream described in Paragraph 3.06.B of this Section, as required from the recycling or disposal facility(ies). Should the Contractor's recycling or disposal facilities require additional samples, the Contractor shall collect a sufficient number of samples and submit to a certified laboratory for chemical analyses to satisfy the requirements of the recycling or disposal facility at no additional cost to the Owner. No separate payment will be made for sampling conducted by the Contractor for the purposes of disposal characterization.

E. Take samples in such a manner as not to cause any cross-contamination. All sampling equipment shall be decontaminated between usage.

F. All analyses shall be performed by a laboratory certified for such analyses by the State if Vermont.

3.11 ADDITIONAL DEMOLITION ALTERNATES:

A. If Alternate C is selected, the Contractor shall demolish, remove, dispose, and/or recycle the loading dock platforms and associated ramps/stairs in their entirety, as shown on the Contract Drawings and described herein. The Contractor shall backfill and grade the area of the loading docks and ramps/stairs to match surrounding grade.

B. The Contractor shall manage, handle, stockpile, and sample, as required, the concrete and miscellaneous materials of the loading docks and associated ramps and stairs per Paragraphs 3.06, 3.07, and 3.10 of this Section.

C. If Alternate D is selected, the Contractor shall demolish, remove, dispose, and/or recycle the Building #1 basement walls, floor and associated stairs in their entirety, as shown on the Contract Drawings and described herein. The Contractor shall demolish the basement walls, in a straight line, to the bottom of the first floor concrete slab. The Contractor shall conduct miscellaneous backfilling and grading within the former loading docks locations to match the surrounding grade.

D. The Contractor shall manage, handle, stockpile, and sample, as required, the concrete and miscellaneous materials of the Building #1 basement walls, floor and associated stairs per Paragraphs 3.06, 3.07, and 3.10 of this Section.

3.12 TRANSPORT OF MATERIAL:

A. The Contractor shall not be permitted to transport demolition materials off-Site until all applicable disposal, or recycling facility documentation has been received, reviewed, and approved by the Engineer. The Contractor shall transport the demolition material under a materials shipping record or Hazardous Waste Manifest, as required.

B. All material removed from the Site shall be transported from the Site by licensed haulers, via designated truck routes, using appropriate vehicles, containment, and documentation. No material shall leave the Site without an associated tracking document; the form of such tracking documents shall be acceptable to the Engineer. Where the means of tracking does not have a preprinted unique alphanumeric identifier, Contractor shall assign and record a tracking number for the document prior to transport of the material from the Site. All materials leaving the Site shall become the property of Contractor.

E. Contractor shall maintain a Material Tracking Log that documents and tracks all material removed from the Site. For each load of material removed from the Site under any Section of these Specifications, whether transported to a recycle, reuse, or disposal facility, the Contractor shall record at a minimum the following information:

1. nature and description of material, including waste stream per Paragraph 3.06.B of this Section;
2. associated Division 2 Specification Section under which the material was removed;
3. business name of licensed hauler;
4. vehicle identifier;
5. weight or quantity of material in hauler's load;
6. type of tracking document and associated document's unique alphanumeric identifier for Hazardous Waste Manifest, or other record being used to track hauler's load;
7. date of transport from the Site;
8. date of arrival at the receiving facility;

9. name and address of the receiving facility; and
10. unique number or identifier of associated receiving facility weight slip or receipt.

F. The Material Tracking Log shall be updated no less than daily, and shall be available to the Engineer for review at all times during normal work hours.

G. A copy of the complete Material Tracking Log shall be submitted to the Engineer prior to Final Completion.

H. The Contractor shall take all precaution and any actions necessary, at no additional cost to the Owner, to prevent cross-contamination from transport vehicles to areas outside the Site. The Contractor shall decontaminate equipment and vehicles as specified in Section 01570 – Environmental Protection.

I. The Contractor shall transport demolition materials from the Site to the disposal/recycling facility in accordance with all United State Department of Transportation (DOT), USEPA, VT DEC, Vermont Agency of Transportation, and applicable State and local regulations.

J. The Hauler(s) shall be licensed in all states affected by transport.

K. The Contractor shall be responsible for ensuring that free liquid is properly transported. "Wet materials" shall not be loaded for transport. The Contractor shall dewater "wet materials", and properly dispose of free liquid in accordance with local, State, and Federal regulations and at no additional cost to the Owner. The Contractor shall also dispose of any free liquids that may result during transportation in accordance with local, State, and Federal regulations and at no additional cost to the Owner.

L. Transporters shall submit proof of permit, license, or authorization to transport excavated material, when applicable, in all affected states.

M. Utilization of a Hazardous Waste Manifest shall require the use of a licensed hazardous material transporter in conformance with the VT DEC hazardous waste regulations.

3.13 WASTE PROFILES AND MANIFESTS:

A. The Contractor shall legally dispose/recycle all demolition materials as specified in this Section and all applicable Federal, State, and local regulations.

B. The Contractor shall provide certified tare and gross weight slips for each load received at the accepted facility with ORIGINAL signatures (including signatures of Owner and disposal facility's representative) and these shall be attached to each returned material shipping record or Hazardous Waste Manifest within 21 days of

obtaining final signatures. The Engineer shall make progress payments after receipt of these weight slips.

C. The Contractor shall prepare and submit to the Engineer for review all waste profile applications and questionnaires, and coordinate with disposal/recycling facilities and all Federal and State Environmental Agencies.

D. The Contractor shall prepare all Hazardous Waste Manifests and material shipping records with all applicable analytical backup, notification, and control forms.

E. The Owner will be designated as generator and will sign all manifests and waste profile application or questionnaires.

F. The Contractor shall furnish all generator copies of the Hazardous Waste Manifest to the Owner for submittal to the appropriate regulatory agencies and to retain for the Owner's records.

G. The Contractor shall submit to the Engineer, prior to receiving progress payment, documentation certifying that all materials were transported to, accepted, and disposed/recycled, at the selected disposal/recycling facility(ies). The documentation shall include all manifests and any other transfer documentation as applicable.

3.14 LOGS, REPORTS, AND RECORDKEEPING:

A. The Contractor shall maintain daily logs and reports covering the work to be performed for this Section of the Contract. The format shall be developed by the Contractor to include daily logs, weekly reports, and a phase out report. Contractor shall provide Engineer with copies of all logs and reports on a weekly basis in a Microsoft Excel spreadsheet format.

B. Daily Logs shall include, at a minimum, the following:

1. Date
2. Area (Site specific) of work being performed
3. Equipment being utilized by employees
4. Type of work performed
5. References to material shipping records, Hazardous Waste Manifests, and waste profiles
6. Stockpile/storage locations, sample locations, and sample identifications
7. Details and documentation of demolition materials management
8. Protective clothing being worn by employees
9. Project manager signature and date

C. Weekly Reports shall include, at a minimum, the following:

A summary of the work performed during the week
Copies of the daily logs.

D. Phase Out Report shall include, at a minimum, the following:

1. Summary of work performed under this Section of the Contract
2. Copies of all material shipping records, Hazardous Waste Manifests, and waste profiles
3. Laboratory reports and plans indicating sample locations
4. Project Manager signature and date

END OF SECTION

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